

Business, State and Environment

The Political Economy of Environmental Conflict
and the Investigation of Business Power

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Peter St. John Crabtree

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Abstract

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This thesis investigates the ability, exercise and consequences of business power in environmental conflict in advanced capitalist society. Research into this subject has tended to fall into either of two camps; system-wide theoretical studies from within political economy or narrower empirical studies by neo-pluralist scholars. It is argued there is a need to reconcile these levels to see how the various mechanisms of influence coincide. The critical realist philosophy of science is used to clear the path for the project, detailing, among other things, an understanding of the nature of social being and of social scientific investigation. The various strands of literature on business power and the environment are reconciled in a two stage analytical framework. The first part of that framework deals with the dilemma of theorising about class in environmental conflict. The solution to that problem is found in value-form. This approach allows structural connections to be made between socioeconomic class and types of substantive value relations with the natural world. The second part of the framework deals with the issues of power and politics. It integrates the wider political economy approach and the narrower mechanisms of business power studied usefully by neo-pluralists. Two in-depth historical case studies of environmental conflict are carried out; the Black Head conflict over a quarry operation near Dunedin, and the much larger Whanganui River Minimum Flows dispute, both throughout the 1980s. At the end of each study the principles of the analytical framework are investigated in turn. It is ultimately concluded that the ability of business to dominate within this context is not absolute, yet it is real and pervasive. Such dominance poses a serious impediment to the achievement of sustainable relationships with the natural world, and the ability of people to participate in decision-making in respect to their environments.

Key Words

Environmental conflict, business power, critical realism, state theory, Whanganui River, hydro-electricity, Black Head.

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General Introduction

Investigating Business Dominance in Environmental Conflict

The purpose of this thesis is to better understand the phenomenon of business dominance in environmental conflict in advanced capitalist society. To investigate how, on the one hand, business values the world, and on the other hand, the way that power is derived from the ownership and control of commodity production. And, to investigate how these two elements together systematically subvert both the possibility of sustainable relationships with the natural world, and the ability of people to participate in decision-making in respect of their environments. The focus of the project is clear – *it is wholly concerned with the ability of business¹ to dominate within environmental conflict, the exercise of this capacity, and the consequences of such dominance.*

As a methodological response to this goal the thesis is organised into three parts. Part One is made up of three preparatory chapters that will perform a number of crucial functions; to explain and defend the purpose of the study and the approach taken, to provide a methodological foundation for the thesis, and to ground the project in the literature on business power and environmental conflict. These threads weave through the first three chapters. In Chapter One there are two parts to the argument that come together to justify and motivate the project. On the one hand, I construct a *prima facie* case for the examination of business power and dominance in environmental conflict. That case is founded on the twin imperatives of the universal need to reduce environmental harm and ensure sustainable relationships with the natural world, and the need to ensure that all people are able to meaningfully participate in decision-making about their environments. I argue that business power is a *prima facie* obstacle to those ends and must therefore be thoroughly explained. On the other hand, I argue that while there is a substantial body of research into this phenomenon, there is a need to understand how the various strands of scholarship can be reconciled, and to see how the various mechanisms of business influence coincide, conflict, cause one another, and are together articulated in practice.

¹ On the whole, I use the terms 'business' and 'capital' interchangeably throughout the thesis. In Chapter Four, which is the first part of the analytical model, I define the capitalist as a producer of commodities (where production is used in the wider Marxian sense of the term).

In Chapter Two I return to basics and engage with the *critical realist* philosophy of science. My intention is to make explicit a range of important assumptions about the objects and practices of science in general and social science in particular. In the immediate context of this thesis I do so to help work out how the strands of scholarship into environmental conflict can be brought together and empirically studied. On a more general level, it is hoped that such an engagement will lay the foundations for a pluralistic, critical and possibly emancipatory resource management. In Chapter Three I first explore some wider avenues of scholarship on environmental conflict. I do so partly because they provide useful insights into the nature and dynamics of environmental conflict, and partly because this thesis reflects back upon those discourses. I finish that chapter by setting out the particular method of the study; the development of an analytical framework, the construction of two in depth historical case studies, and the systematic application of the framework to the investigation of each study.

It is in Part Two that I develop the analytical framework that is the hub of the thesis. The framework consists of two main elements. Chapter Four is concerned with the issue of value-form. I do so first as a solution to the problem of theorising about class in environmental politics and conflict. I argue that a systematic causal connection can be made between *value type* (and hence social transactions with nature) and *socioeconomic form*. I suggest that value-form can be used as a basis for categorising social actors in environmental politics – in tendential terms business is essentially motivated by commodified values, and environmentalists' non-commodified values (ie. the value-holdings of participants can be used as a basic organising principle for the study of power and politics). The second reason for doing this is that it enables a systematic connection to be made between socioeconomic form and environmental harm. For example, I assert that the abstraction and disconnection involved in the process of commodification for exchange is inherently problematical for the attainment of a healthy relationship with the natural world (ie. a sustainable one).

Chapter Five contains the more extensive component of the framework that focuses upon the power and politics element. This part of the framework operates on two levels (for it is an attempt to reconcile some of the theories of business power in environmental politics). The first works at the level of broad structural relations that persist between business, the state and other social agents (in this case environmental actors) in advanced capitalist societies. It is based upon 'state theory' – in this case the work of the post-Marxist/neo-Weberian Claus Offe – and while that theory is in a sense state centred, it provides an insight into how business derives power at the broad structural level. In the second part I draw together a series of five narrower mechanisms of business power that have been studied by both liberal and Marxist scholars alike. I bring the two levels together within the framework in order to understand how they are functionally connected.

In contrast to this initial broadly theoretical development, Part Two of the thesis is dedicated to the conduct of two extensive empirical case-studies of environmental conflict: (a) The Black Head dispute – involving a quarry operation on a coastal promontory near Dunedin, during the 1980s, and; (b) The Whanganui River minimum flows dispute – which was over the diversion of water out of the Whanganui River headwaters for the purposes of hydro-electricity generation – the main period of inquiry here also the 1980s. These studies are driven by the analytical framework, with principles and concepts derived from political-

economy being applied to the empirical examination of business dominance in environmental conflict. However, the investigation – identification and understanding – of those structures requires the transcendence of disciplinary boundaries (for example, the assessment of who prevailed at a particular juncture will involve judgement across a range of substantive disciplines). Because of this the studies will at times appear extremely broad, their content ostensibly removed from the immediate concerns of the framework, but this amplitude is ultimately justified.

Each of the case studies is conducted over four chapters. The first three chapters in each study are broadly empirical (although the types of information I provide are ultimately shaped by the needs of the analytical framework), and I build up a full contextual understanding of each conflict, setting out, among other things, the historical genesis, substantive discourses, processes of conflicts and outcomes. It is only when I have developed a full picture of each that I will seek to systematically investigate if, why and how the various posited mechanisms were present or not and how they connected with one-another. I do so in Chapters Nine and Thirteen respectively and they are the interpretive crux of the thesis.

Before I proceed, I would like to emphasise that while the roots of the study lie in political economy it is a resource management thesis and is thus intended to be thoroughly interdisciplinary and integrative, or as I argue in Chapter Two; at once multi-disciplinary, inter-disciplinary and trans-disciplinary.

The Environmental Problematique, Environmental Conflict and Business Dominance

1.1 Introduction

On the environmental front, the situation could hardly be worse. ... Every major indicator shows a deterioration in natural systems: forests are shrinking, deserts are expanding, croplands are losing top-soil, the stratospheric ozone layer continues to thin, greenhouse gases are accumulating, the number of plant and animal species is diminishing, air pollution has reached health-threatening levels in hundreds of cities, and damage from acid rain can be seen on every continent.¹

The project of emancipation is with us for the duration firstly, because it represents the moral dimension of globalisation, so that there must now always be a thrust to extend moral discourses to all humans. Secondly, in our particular contingent world, it is increasingly looking as if human emancipation – not any (impossible) *final* emancipation, but emancipation from some of the chains that currently bind enormous groups of human beings – is a precondition of human survival. Contra Baumann, sociology cannot liberate itself from this project, in which it plays a crucial role by interpreting and theorising social reality, by producing evidence and counter-evidence, and by observing and summarising social practices in the process of change.²

The two passages quoted above represent two foundational strands which together underpin this thesis. On the one hand, there are the overwhelming material and social imperatives inherent in the 'environmental problematique' – manifold problems varying in scale, imminence and complexity – and on the other hand, there is the practice of social science with its intrinsic emancipatory role.³ This thesis arises out of, and inhabits, this dialectic, with contemporary social theory being utilised to seek a better understanding of the nature of business power and dominance in environmental conflict within advanced capitalist societies.

There are two tasks that are required of this first chapter. First, the issue must be set in context, and secondly, the core issues must be clearly identified. This section is thus structured

¹ L. Brown, et al., 1991, *State of the World: A Worldwatch Institute Report on Progress Towards a Sustainable Society* W.W. Earthscan, New York, p. 5.

² C. New, 1995, "Sociology and the Case for Realism" *The Sociological Review* No. 43, November, p. 825.

³ "Emancipation" is defined here as "the transition from an unwanted, unnecessary and oppressive situation to a wanted and/or needed and empowering or more flourishing situation". R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, p. 253. See discussion below in 1.3.(ii)(d).

so as to progress from the general imperatives of the environmental problematique, through the pandemic of environmental conflict, to the specific subject of business dominance within such conflict. I begin with the global perspective of the environmental problematique or crisis. I argue that the environmental disputes that form the core of this thesis must be understood as both symptomatic and constitutive of the destructive tendencies that ultimately give rise to this crisis. I proceed to examine the broad characteristics of the environmental problematique and the imperatives that arise out of that context. I then move on to construct a *prima facie* case for the study of business dominance in environmental conflict within advanced capitalist society; specifically, New Zealand society. In doing this I will review the existing literature on business dominance in environmental conflict and beyond, and will argue that there are deficiencies in the literature that need to be addressed.

1.2. The Environmental Problematique

Much of this thesis focuses upon two specific episodes of conflict. Each dispute is in and of itself of some significance. Each dispute involves considerable material and social consequences – through both the effects of conflict *per se*, and the effects of the concrete questions at their core. However, it is vital that these disputes are set in context, for although each episode represents a unique historical conjuncture of causal forces, they are also considered here to be *symptomatic*, and indeed *constitutive*, of wider destructive tendencies. These tendencies are manifest within what has been variously referred to as the environmental ‘problematique’, ‘dilemma’, ‘challenge’, ‘crisis’, etc.

On one level these labels represent a simple categorisation, or a general aggregation of innumerable instances of existing (and potential) environmental destruction. On another level they connote a holism in which singular events and threats are to varying degrees connected within systems, which are themselves in turn connected, and so on.⁴ In this way the environmental problematique exists contemporaneously as a global, national, regional and local issue – in “a seamless net of causes and effects”.⁵

Considered in the first sense, as a general aggregation, the problematique differs little in qualitative terms from previous periods in history. The difference is primarily one of scale. Successive waves of economic expansion have without exception been associated with new forms of environmental threat. For example, in recent history there have been the unprecedented transformations of the industrial revolution which involved a myriad of environmental problems; from the pollution problems attendant with the newly industrialised cities, natural resource depletion on a global scale, the impacts of mechanised and increasingly large scale agriculture, to the destruction of large tracts of pristine wilderness.⁶ In these terms the problematique represents a widening in type and scale of effects. Some idea of the more contemporary scope of effects can be gleaned from a 1987 United Nations Environment

⁴ Holistic causality “may be said to operate when a complex coheres in such a way that (a) the totality, i.e the form or structure of the combination, causally co-determine each other, and so causally co-determine the whole.” R. Bhaskar, 1994, *Plato Etc.* p. 254.

⁵ World Commission on Environment and Development, 1987, *Our Common Future: Report of the Commission* Oxford University Press, Oxford, p. 5.

⁶ Cf. R. Wilkinson, “The English Industrial Revolution” in D. Wilkinson, (ed.), 1988, *The Ends of the Earth: Perspectives on Modern Environmental History* Cambridge University Press, Cambridge, Ch. 4.

Programme report *State of the Environment*, which discusses the crisis in terms of: Air quality and atmospheric issues; Land, water and food production; Energy and transport; Chemicals and hazardous waste; Environmental health; Military activity, and; Social and economic issues.⁷ Such a list is by no means exhaustive, nor are the categories exclusive. Notable omissions are threats to bio-diversity and destruction of natural habitat.

It is issues such as that of bio-diversity which encapsulate the second, holistic, nature of the problem. Considered in isolation, the loss of individual species, although of varied consequence (perceived and real, immediate and long-term etc.) will very rarely have shattering global effects. However the cumulative effects of biotic population depletion and extinction are now thought to be of huge importance, both for loss of specific human uses (eg. pharmaceutical production or for agricultural genetic stocks) and for the implications for wider ecosystem function and survival (in addition to fundamental ethical considerations).⁸ Other examples of this global holism are climate change⁹, contamination of the oceans and depletion of stratospheric ozone.

The environmental problematique is thus stratified, consists of a panoply of issues, and is highly integrated across space and time. Two associated factors complete the picture: *risk* and *uncertainty*. The historical escalation in anthropogenic environmental change has been paralleled by an increase in scientific understanding of bio-physical processes.¹⁰ Indeed, the very formulation of the 'environmental problematique' with its systemic connotations is itself derivative of conceptual developments in ecology.¹¹ This expansion in scientific knowledge has, however, been double edged, for its corollary has been increased appreciation of the complex, chaotic and opaque nature of these open systems. As a result decision-makers confront acute problems with verification and prediction.¹² Human beings are faced with a mixture of insight and uncertainty. Furthermore, this uncertainty, coupled with the massive scale and fundamental nature of the crisis (the possibility of global resource shortages, ecological collapse, etc.) entails unprecedented levels of risk.¹³ It is precisely this level of risk that differentiates the problematique from previous states of socio-ecological being.

⁷ E. Hinnawi, and M. Hashimi, 1987, *The State of the Environment* United Nations Environment Programme, Butterworths, London, *passim*.

⁸ Most notably: World Resources Institute et. al., 1992, *Global Biodiversity Strategy: Guidelines for Action to Save, Study and Use the Earth's Biotic Wealth Sustainably and Equitably* World Resources Institute, Washington D.C. Also see: Department of Conservation, 1996, *A Bio-diversity Strategy for New Zealand* Department of Conservation, Wellington.

⁹ The Intergovernmental Panel on Climate Change (IPCC) recently concluded that the world must reduce its emissions of green house gases by some 60-80 per cent if it is to prevent a dangerous acceleration of global warming. E. Von Weizsäcker, 1995, "Let Prices Tell the Ecological Truth" *Our Planet* Vol.7, No.1, pp. 18-19.

¹⁰ Although not necessarily other forms of environmental understanding. For example the wealth of ecological knowledge accumulated by indigenous peoples, especially in more homeostatic cultures.

¹¹ A very useful review of the development of biogeochemical understanding and the attendant conceptual evolution is provided by Lynton Caldwell in: 1990, *Between Two Worlds: Science, The Environmental Movement and Policy Change* Cambridge University Press, Cambridge, pp. 38-54.

¹² One example of this is in meteorology, where early analysts were convinced that predictive long-range models of global climate were a matter of identifying a sufficient range of variables together with the development of powerful mathematical programs. Whereas today these systems are seen as open and incredibly chaotic, and hence subject to greater uncertainty.

¹³ There has long been, and undoubtedly will continue to be, a vigorous debate about the 'real' levels of environmental threat/s. The position here is that although global carrying capacities and ecological thresholds may be contested and highly uncertain, there has been over recent decades a generally recognised decline in

In the opening paragraph of this chapter I asserted that there are overwhelming material and social imperatives inherent in the environmental problematique. Put simply: *given the existence of the problematique there is an imminent and universal need to reduce environmental harm*. This assertoric imperative can be considered as a fact→value argument (within the confines of a particular understanding of a *fact*¹⁴). On this basis (which is that advocated by critical realists¹⁵), “claims about what human beings and the world are like, ... can allow us both to *recommend* values as (prima facie) universally applicable and to *argue* about their application”. Consequently, the argument here is that “although no formal contradiction is involved, it does not make sense to draw the conclusion that moral responses to environmental destruction are optional, or entirely a matter of taste”.¹⁶ Diagnosis involves normative, hortatory and action elements.

It is not possible here to traverse the range of specific responses to actual and potential instances of environmental destruction – such imperatives are stratified and inter-connected, ranging in size, urgency and complexity. It is possible, however, to identify an emergent generic imperative beyond the simple injunction ‘to reduce environmental harm’. As with the definition of the problematique, the formulation of a broad imperative has been founded upon developing ecological knowledge. As noted above, to come to understand the effects of anthropogenic disturbance in natural systems necessarily requires knowledge of the operation of those systems, and such knowledge is in turn seen as providing a basis for recommending preferred states. Thus, certain principles which originate in scientific ecology¹⁷, most significantly the idea that ecosystems organise themselves to maximise their *sustainability*, have been appropriated and extended “through the social sciences and humanities to philosophy, to religion, and to politics”¹⁸. This extension is more than just the employment of

environmental quality. Cf. L. Brown, C. Flavin, and H. Kane, 1992, *Vital Signs: The Trends that are Shaping Our Future* W. W. Norton, New York.

¹⁴ The notion of a *fact* here differs from the positivist understanding. For positivists the “properties possessed by facts *qua* social objects are transformed into qualities belonging to them as *natural things*. Fetishism, by naturalising facts, at once collapses and destratifies their generative or sustaining social context and the mode of their production, reproduction and transformation in time, *ipso facto* dehistoricising and externalising them. The fact form thus acts as an ideology of what Kuhn has called ‘normal science’, obscuring from scientists and non-scientists alike the historically specific structures and relations generating sense experience in science.” Thus for critical realists “facts are not what are apprehended in sense-experience (things, events, etc.), but the products of the conceptual and cognitive structures in terms of which our apprehension of things is organised”. R. Bhaskar, 1986, *Scientific Realism and Human Emancipation* Verso, London, pp. 283-4.

¹⁵ See Chapter Two.

¹⁶ C. New, 1995, “Sociology and the Case for Realism” pp. 815-6, also; A. Collier, 1994, *Critical Realism: An Introduction to Roy Bhaskar’s Philosophy* Verso, London, p. 182.

¹⁷ Fritjof Capra lists eight basic ecological principles: interdependence, ecological cycles (continual), energy flows (driven by solar energy), partnership (involving competition and cooperation), flexibility, diversity, coevolution, and sustainability. For Capra *sustainability* is seen as the overriding goal of the system. Such a view may however be overly teleological, and it is sufficient here to characterise these principles in realist terms as transfactual tendencies. In my view a more balanced characterisation of ecosystem function is that provided by John Dryzek: “Human activity in the ecological realm proceeds, then, in the context of interpenetrated, dynamic systems which exhibit emergent properties. Dynamism is manifested in *homeostasis, adaptiveness and succession*”(my emphasis). F. Capra, and G. Pauli, (eds), 1995, *Steering Business Towards Sustainability* United Nations University Press, Tokyo, p. 6; J. Dryzek, 1987, *Rational Ecology: Environment and Political Economy* Basil Blackwell, Oxford, pp. 26-8; An excellent discussion of the meaning of sustainability can be found in: M. Redclift, 1987, *Sustainable Development: Exploring the Contradictions* Methuen, London, Ch. 2. Also, A. Dragun, and K. Jakobsson, (eds), *Sustainability and Global Environmental Policy: New Perspectives* Edward Elgar, Lyme NH, Chapters 3 and 4.

¹⁸ L. Caldwell, 1990, *Between Two Worlds: Science, The Environmental Movement and Policy Change* Cambridge University Press, Cambridge, p. 11. Some prominent ecologists deplore the cooption of the term ‘ecosystem’, which they understand in a limited sense as a scientific concept and necessary term of both

ecological metaphor and analogy, but rather a realisation that human activity is ultimately constrained (and enabled) by ecological structures and processes. Ecology and economy are totally inter-woven.¹⁹

The purest normative expression of this connection, and of the baseline ecological imperative, is the notion of 'environmental sustainability'. Dietz and Van der Straaten provide a precise definition of this:

The (aggregate) environmental impacts shall not impair the functioning of resource regenerative systems and waste assimilative systems and the use of non renewable resources of which is compensated for by equivalent increases in supplies of renewable or reproducible substitutes.²⁰

Such a definition stands in full recognition of the environmental crisis and its attendant physical imperatives. It is necessary, however, to consider the international context and the political response to this idea.

The articulation of sustainability within the wider environmental debate, and its overarching application to the relationship between people and the environment, began in the late 1960s gaining increasing importance through such fora as the 1972 United Nations Conference on the Human Environment in Stockholm, the International Union for the Conservation of Nature *World Conservation Strategy* in 1980,²¹ the 1987 World Commission on Environment and Development,²² and more recently the 1992 United Nations Conference on Environment and Development in Rio de Janeiro.²³ While the essential concept of 'environmental sustainability' has influenced this debate, it has been politically subsumed within the broader and less distinct notion of 'sustainable development'. This has been defined by the Brundtland Commission as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".²⁴ This understanding

descriptive and analytical ecology. Instead, they advocate the use of 'ecocomplex' and 'superecocomplex' to refer to larger agglomerations. N. Polunin, "Ecosystems" in: R. Paehlke, (ed.), 1995, *Conservation and Environmentalism: An Encyclopedia* Garland Publishing, New York, pp. 205-6.

- ¹⁹ This point was made by the Russian ecologist W.[V.]I. Vernadsky in 1945: "Until recently the historians and the students of the humanities, and to a certain extent even the biologists, consciously failed to reckon with the natural laws of the biosphere, the only terrestrial envelope where life can exist. Basically man cannot be separated from it; it is only now that this indissolubility begins to appear clearly and in precise terms before us." In: "The Biosphere and the Noönsphere" *American Scientist* 33 (January), p. 4. Roy Bhaskar makes a similar point while criticising the mind/body dichotomy in philosophy, stating that "social structure is embedded in, conditioned by and in turn efficacious on the rest of nature, the ecosphere". 1989, *Reclaiming Reality: A Critical Introduction to Contemporary Philosophy* Verso, London, pp. 6-7. This is not, however, to advocate a homology of social systems with ecosystems and "the treatment of man as just another species within ecosystems. Human societies possess unique devices for dealing with any disequilibrium in their relationships with biological ecosystems. These devices – such as social choice mechanisms – have no necessary direct counterparts in biological ecosystems." J. Dryzek, 1987, *Rational Ecology: Environment and Political Economy* Basil Blackwell, Oxford, p. 42.
- ²⁰ F. Dietz, and J. van der Straaten, 1992, "Rethinking Environmental Economics: Missing Links Between Economic Theory and Environmental Policy" *Journal of Economic Issues* Vol. 26, No. 1, pp. 27-51.
- ²¹ International Union for the Conservation of Nature, 1980, *World Conservation Strategy* IUCN, Gland, Switzerland. According to Redclift this report marked a watershed in thinking about the environment and development. M. Redclift, 1987, *Sustainable Development: Exploring the Contradictions* p. 21.
- ²² World Commission on Environment and Development, 1987, *Our Common Future: Report of the Commission* Oxford University Press, Oxford.
- ²³ Cf: United Nations, 1992, *Rio Declaration on Environment and Development* UN Document A/CONF.151/Rev.1; United Nations, 1992, *Report of the United Nations Conference on Environment and Development (Agenda 21)* UN Document A/CONF.151.26.
- ²⁴ World Commission on Environment and Development, 1987, *Our Common Future* p. 8. Various governmental and business interests have diluted and possibly compromised the core ecological concept, preferring more liberal, or growth oriented interpretations of this term. For a discussion of this see: G. Dunkley, 1992, *The Greening of the Red: Sustainability, Socialism and the Environmental Crisis* Pluto Press, New South Wales, pp. 13-20.

acknowledges that the complexities and uncertainties of the bio-physical dilemma are compounded by the socioeconomic dimension and the concomitant array of human aspirations:²⁵ First, there is the issue of appropriate end-states (not final). Questions such as: What are the limits upon growth? What type of growth is appropriate? Should growth per se be in question?²⁶ Should we distinguish between growth and development? And are development and environmental protection in a trade-off relationship or are they complementary? Extremely critical are the issues of spatial and temporal dislocation – that is, the problems of unequal standards of living (ie. global, intergenerational) and the non-correspondence of ecological and human costs and benefits. All these issues certainly complexify sustainability as a goal. Some observers are concerned that they dilute and confuse the core concept of environmental sustainability. They argue that it is a non-negotiable bottom line that must be tightly defined and given normative primacy – other “desiderata, such as poverty alleviation, freedom, democracy, gender balance, equality, equity, employment, feminism, peace, social security and justice”, while being of incontrovertible importance, must be understood as subsidiary to the life-support argument.²⁷ It is easy to see that a diluted understanding of sustainability may well cloud the way forward, but it is equally and most difficultly the case that these “desiderata” constitute the causes of the environmental problematique itself; This leads into the second set of issues – the difficulties associated with transition. The inertia of current socioeconomic structures and practices is overwhelming. The transformation of human mores, behaviour and social institutions (economic, religious, psychological and political etc.), requires understanding diverse and complex phenomena, and the mobilisation of appropriate action. Without doubt these are formidable tasks.

Within this section the problem has been defined and a solution derived from an ecological or systems perspective. It has been argued that the contextually derived imperative of sustainability is a *sine qua non* for the avoidance of environmental catastrophe on many different levels. However at least two connected qualifications need to be made here: First, as a generic imperative and guiding rule, sustainability, although necessary, may not always be a sufficient guarantor of some environmental values. Furthermore, in most cases a strict interpretation of the concept would prove sufficient, but it seems likely that there would be exceptions, and the flip side of such an absolute approach would be to reduce flexibility in environmental decisions and to preclude what may seem to be reasonable uses;²⁸ The second

²⁵ This is in the first place an artificial separation, both in terms of the creation of the problem and in defining the problem. As Redclift and Benton note: “...rival human cultural and political traditions are as much at work in constructing ... views of nature as they are in drawing congenial lessons from them”. M. Redclift, and T. Benton, (eds), 1994, *Social Theory and the Global Environment* Routledge, London, p. 44.

²⁶ An interesting synthesis of the growth and sustainability arguments is provided by D. Korten, 1991, “Sustainable Development” *World Policy Journal* Winter, pp. 156-90.

²⁷ R. Goodland, 1997, “Biophysical and Objective Environmental Sustainability” in: A. Dragun, and K. Jakobsson, *Sustainability and Global Environmental Policy* pp. 63-4.

²⁸ This is the argument about the appropriate or necessary degree of environmental sustainability. A debate which centres upon the issue of how much substitution is possible (or right) between different types of capital (or things). Goodland, following Daly and Cobb, lists; human-made capital, natural capital, human capital and social capital. He then goes on to list three form of environmental sustainability; weak, strong, and absurdly strong. The middle option – strong sustainability – is described as follows:

This requires maintaining different kinds of capital intact separately. Thus, for natural capital, receipts from depleting oil should be invested in ensuring that energy will be available to future generations at least as plentifully as enjoyed by the beneficiaries of today’s oil consumption. This assumes that natural and human-made capital are not perfect substitutes. On the contrary, they are complements to some extent in most production functions. A

issue is that in addition to an ecological foundation there are of course other bases for advocating the protection of environmental values, indeed sustainability will not always be an appropriate starting point for such arguments (many are discussed over the course of the two case studies – for example, the aesthetic arguments for the protection of Black Head). Furthermore, where particular philosophical starting points are not discussed they are still in a sense accommodated through the parallel social imperatives that drive this thesis – ie. through meaningful democratic consideration of peoples' diverse values and beliefs (see 1.3).²⁹

1.3 Environmental Conflict

The meaning of the term 'environmental conflict' will undoubtedly be pivotal in determining the focus and parameters of inquiry – including the methods appropriate to its investigation. Hence it is important that a working (at least provisional) definition be established at the outset. Considered first, and in isolation, the concept of 'environment' is wide in its meaning. In concrete form it is commonly understood as: "That which environs; the objects or region surrounding anything" or alternatively; "The conditions under which any person or thing lives or is developed".³⁰ Yet such a definition – as 'things exogenous' – fails to capture the essence of the concept, which is *relational*. As Caldwell notes: "The fundamental meaning of environment is relativistic; it denotes a relationship between a particular object and all that surrounds and directly or indirectly affects it".³¹ These are however very broad terms. They are inclusive of the understanding of 'environment' as studied herein, but do not capture the political meaning of this term, which is itself ambiguous. Indeed, the divergent usage of the term (even within the bounds of this thesis) suggests that the search for a satisfactory comprehensive definition may be a futile exercise.³² It is possible, however, to provide a broad ascriptive typology of 'environmental' issues as understood here. A common classification is that adopted by Bührs and Bartlett, which identifies three dimensions: (i) Ecosystems – concerning the functioning of ecological processes and protection of bio-diversity; (ii) Natural resources – regarding those elements found in nature which may serve human needs; And (iii) quality of life issues – involving the material conditions of human existence, but also

sawmill (human made capital) is worthless without the complementary natural capital of a forest. ... Of the three degrees of sustainability, strong sustainability seems greatly preferable mainly because of lack of substitutability for much natural capital, the fact that it and not human-made capital is now limiting and for prudence in the face of many irreversibilities and uncertainties.

R. Goodland, 1997, "Biophysical and Objective Environmental Sustainability" in: A. Dragun, and K. Jakobsson, (eds), *Sustainability and Global Environmental Policy* pp. 82-3; Daly, H. and Cobb, J. 1990, *For the Common Good: Redirecting the Economy Towards Community, the Environment and a Sustainable Future* Greenprint, London.

²⁹ My position is similar to that of John Dryzek when he writes: "An anthropocentric life-support approach is taken here for two reasons. First, a life-support approach is a 'minimal' one. Introducing other reasons for attaching positive value to natural systems can only make the arguments that follow apply *a fortiori*. Secondly, in restricting oneself to some basic human interests, one can meet competing forms of functional rationality (whether economic, social, legal or political) on their own ground: the ground of specifically human interests." J. Dryzek, 1987, *Rational Ecology: Environment and Political Economy* Basil Blackwell, Oxford, p. 35.

³⁰ *Oxford Dictionary* (second edition) 1989, Clarendon Press, Oxford.

³¹ L. Caldwell, 1990, *Between Two Worlds: Science, The Environmental Movement and Policy Change* Cambridge University Press, Cambridge, pp. 6-7.

³² Indeed, David Harvey has asserted its fundamental incoherence as a unitary concept; 1993, "The Nature of Environment: The Dialectics of Social and Environmental Change" *The Socialist Register* 1993 p. 2.

enveloping the almost infinite human responses (subjective and intersubjective) to their surroundings.³³ This is of course a synthetic division and the categories are often intertwined. All of these aspects are present in the two case studies contained in this thesis.

Throughout this thesis the term 'conflict' is given a wide interpretation. This breadth of meaning is extended in two senses. First, as a verb it is understood here in a figurative sense – "to contend, strive, struggle *with*" – it represents a broad tenor of opposition.³⁴ However, it is in its second sense, the substantive, as an *object* of inquiry, that it is a more complex concept. 'Conflict' is understood here primarily as a social phenomenon³⁵ (although it is recognised that 'environmental conflict', by virtue of its 'environmental' dimension, will necessarily involve aspects of material causality and certainly have material implications). This means that any understanding of this phenomenon will in the first instance rest upon a particular understanding of social being (social ontology). A comprehensive account of *transcendental realism* – the social ontology of an increasingly influential philosophical position broadly labelled *critical naturalism*, which underpins this thesis – will feature in Chapter Three, but it is desirable to preface that discussion by highlighting three elements required of a definition of conflict if it is to be consistent with such an ontology. First, critical realism postulates a general stratification of reality into three domains: (i) the *empirical* (made up of experiences), (ii) the *actual* (made up of events) and, (iii) the *real* (namely, transfactually efficacious structures and mechanisms generative of events).³⁶ It follows that 'conflict' can be usefully understood in these terms as it persists not only in the limited 'empirical' dimension as, for example, maintained by behaviourists, but also at deeper levels less accessible to the observer. Secondly, for critical realists, considered as a social activity 'conflict' involves the duality of social structure and human agency or praxis – it must be understood as penetrating both aspects, irreducible (in an absolute sense) to neither.³⁷ And thirdly, as with 'environment', 'conflict' is a relational concept – it involves relationships *between* individuals (and groups), and between individuals (and groups) and nature, and the products of such relations. Conflict is thus understood here as a struggle between people, and between people and things; as multi-levelled (ontologically vertical); and comprising of mutually defining structural and individual elements.

Finally, 'conflict' is also used here as a noun, to describe historic episodes (viz. the two case studies). In this capacity it implies the application of temporal and spatial boundaries to the process of conflict as just described (these may be purely for convenience). It should be noted here that in this sense the term 'conflict' is used interchangeably with 'dispute' or 'controversy'.

In justifying environmental conflict as a worthy area of inquiry I will not catalogue manifest examples or seek to quantify at the macro level the prevalence of conflict. To do so would be to exclude (given the above definition) those instances opaque or invisible to the

³³ T. Bührs, and R. Bartlett, 1993, *Environmental Policy in New Zealand: The Politics of Clean and Green?* Oxford University Press, Auckland, pp.38-9. Also, the definition of 'environment' in the *Resource Management Act 1991* roughly approximates this typology.

³⁴ *Oxford Dictionary* (second edition) 1984, Clarendon Press, Oxford.

³⁵ This is not to say that other forms of conflict (internal – subjective, non-human, etc.) do not exist.

³⁶ W. Outhwaite, 1987, *New Philosophies of Social Science* Macmillan, London, p.45. Also; C. Lawson, M. Peacock, and S. Pratten, 1996, "Realism, Underlabouring and Institutions" *Cambridge Journal of Economics* Vol. 20, p. 142.

³⁷ R. Bhaskar, 1991, *Philosophy and the Idea of Freedom* Basil Blackwell, Oxford, p.147.

observer. The assertion that environmental conflict is pandemic can be adduced from a general association between environmental problems and conflict. Although environmental problems do not always entail conflict it is not unreasonable to suggest that in a high proportion of instances some form of conflict will be involved. The causal relationship is two-way, with social conflict producing environmental problems and vice versa. Certainly, in addition to its role in the genesis of environmental problems, conflict is often manifest in diagnosis and consequent responses (both means and ends arguments).

As a broad and complex phenomenon environmental conflict will be considered significant for many different reasons. In the context of this study I would like to highlight two general motivations. The first and foremost is a desire to examine the functionality of environmental conflict vis-à-vis the environmental problematique and its imperatives – principally, the need to attain sustainable relationships with the natural world; to what extent will those elements of environmental conflict studied herein enable or inhibit the attainment of sustainable states? Given the overwhelming need to transform our societies in this direction any such knowledge will be invaluable.

The second group of motivations are based upon two interdependent social goods; participatory democracy and social equality. These ends are at once subsidiary to the first, insofar as a sustainable relationship with the natural world is in the long term a *sine qua non* for any mode of social organisation. They are also valid and desirable ends in themselves, and, it can be argued that they provide a basis for the attainment of sustainable states.³⁸ These are grand themes in political philosophy. As Barber notes: “the democratic ideal remains one of the most cherished and at the same moment most contested of political ideals”.³⁹ The concept of social equality is no less polemical. While it is impossible here to adequately traverse these subjects it is important that I situate myself within a general historical stream of social thought.

Much of the model of structural dominance formulated in Chapters Four and Five is derived from ideas and theoretical developments in Marxist, neo-Marxist, and post-Marxist political economy. Such theories of dominance, which are *critical* analyses of structural inequality – most notably the unequal ability of various individuals and groups to exercise influence – necessarily entail some essential understanding and positive valuation of both equality and the democratic imperative. Considering democracy first, Marx himself saw a central tension or contradiction between “the principle of democracy – the full participation of all members of society in regulating their communal life – and the limited, even distorted form which democracy assumes in a class society in which the bourgeoisie is dominant”.⁴⁰ In addition to this, for Marx:

Democracy was seen as a necessary, but not a sufficient, condition for freedom. Marx and Engels denounced what they called the confusion of ‘political emancipation with human emancipation’.⁴¹ Freedom for them meant not merely the theoretical right to do something, but

³⁸ For an excellent inquiry into the linkages between various social choice mechanisms and ‘ecological rationality’ see John Dryzek’s 1987, *Rational Ecology: Environment and Political Economy* Basil Blackwell, Oxford.

³⁹ B. Barber, “Democracy” in: D. Miller, et al., (eds), 1987, *The Blackwell Encyclopaedia of Political Thought* Blackwell Reference, Oxford, p. 119.

⁴⁰ T. Bottomore, 1979, *Political Sociology* Hutchinson, London, pp. 22-3.

⁴¹ K. Marx, and F. Engels, 1956, *The Holy Family* Foreign Languages Publishing House, pp. 118, 128.

with it also the actual means.⁴² Thus real freedom requires 'quite palpable material conditions'.⁴³ This democracy alone does not provide.⁴⁴

In this formulation there are two elements; the espousal of an expansive notion of participatory democracy contra to preponderant minimalist conceptions – “that is to instrumental, representative, liberal democracy”,⁴⁵ and a contextual understanding of democratic praxis extending beyond the liberal preoccupation with formal rights. The issue of equality is central to this understanding of democracy, both in the extension of formal rights – absolute equality articulated through convention and statute – and in the structural and consequent praxiological sense of the relative capacity to act and to influence. Democracy itself comes to mean “a society where equality exists”.⁴⁶ But, heeding Marx and Engels’ warning noted above, political emancipation is intrinsic to, but not the equivalent of, human emancipation. In the following studies my concern with equality extends further than the issue of equality of opportunity (even in a broad sense), it is also with the problem of equality of outcome (recognising that the two are connected). In this second respect it is not absolute. It is the advocacy of “*greater* equality of material conditions rather than *complete* equality”.⁴⁷ This concern stems from two sources:

On the one hand, it arises from a concern with justice and the avoidance of exploitation: socialists would claim that unreformed capitalism throws up a set of inequalities that cannot be justified in terms of people’s differing efforts and abilities. On the other hand, it arises from a concern with community or fraternity: a society marked by large disparities in standards of living is inevitably also a society in which people are divided from one another by barriers of class and prevented from understanding and sympathising with each other’s predicament.⁴⁸

Environmental conflict thus persists within a broad context – the environmental problematique. Out of this problematique arises a cardinal imperative; that of sustainability. Furthermore, into this equation enters another strand of emancipatory imperatives founded upon humanist⁴⁹ principles; strong democracy and social equality.⁵⁰ Together these motivations underpin this thesis. These factors are not, however, dealt with directly. The

⁴² Ibid, p. 176.

⁴³ Ibid, p. 127.

⁴⁴ T. Sowell, 1986, *Marxism: Philosophy and Economics* Unwin Paperbacks, London, p. 142.

⁴⁵ B. Barber, 1984, *Strong Democracy: Participatory Politics for a New Age* University of California Press, Berkeley, p. 117.

⁴⁶ B. Holden, “Democracy” in: W. Outhwaite, and T. Bottomore, 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, p. 142. Although I would like to stress my agreement with the geographer David Harvey when he writes: “Socialism is not necessarily about the construction of homogeneity. The exploration of our species potential can presumably also be about the creative search for and exploration of diversity and heterogeneity”. 1993, “The Nature of Environment: The Dialectics of Social and Environmental Change” *The Socialist Register* 1993 pp. 44-5.

⁴⁷ D. Miller, “Equality and Inequality” in: W. Outhwaite, and T. Bottomore, 1993, *The Blackwell Dictionary* Blackwell Reference, Oxford, p. 201. The issues of the nature of egalitarian justice, and democracy and emancipation have been of central concern within a new wave of Marxist scholarship (dubbed the ‘second wave of analytical Marxism’) through the 1990’s. For an overview of this body of work see: L. Jacobs, 1996, “The Second Wave of Analytical Marxism” *Philosophy of the Social Sciences* Vol. 26, No. 2, pp. 279-92. More extensive works include: T. Carver, (ed.), 1991, *The Cambridge Companion to Marx* Cambridge University Press, Cambridge; B. Ollman, 1993, *Dialectical Investigations* Routledge, New York; J. Roemer, 1994, *A Future For Socialism* Verso, London; P. Van Parijs, 1993, *Marxism Recycled* Cambridge University Press, Cambridge; E. O. Wright, A. Levine, and E. Sober, 1992, *Reconstructing Marxism: Essays on Explanation and the Theory of History* Verso, London.

⁴⁸ D. Miller, “Equality and Inequality” in: W. Outhwaite, and T. Bottomore, 1993, *The Blackwell Dictionary* Blackwell Reference, Oxford, p. 201.

⁴⁹ This is not to say that the sustainable imperative is not based upon humanist principles – only that it is not exclusively so.

⁵⁰ These are the particular motivations here, which is not to deny other concerns, or even to rank these motivations above others.

primary purpose of this thesis is not to theorise further about these ends in themselves but rather to understand how things are, thus contributing to the transformation of society and the realisation of such ends.

Finally, it is appropriate to touch upon the question of the *status* of environmental conflict. Conflict has been defined in wide terms. On this basis it is to be seen as an inevitable and ever-present feature of social life rather than as a pathological phenomena necessarily symptomatic of social disintegration (although in particular instances it may be so).⁵¹ Hence, as outlined at the beginning of this chapter, this thesis is not concerned with the eradication of conflict *per se*, instead what matters are the various forms of direct and indirect harm which are manifest within specific conflicts, or *types* of conflicts (where it is possible to generalise).

1.4. Business Dominance in Environmental Conflict

At the beginning of the thesis, I declared the focus of this project to be; the ability of business to dominate within environmental conflict, the exercise of this capacity, and the consequence of such power. The purpose of this sub-section is to construct a *prima facie* case for inquiry into this type of business influence. To begin, I have argued that the motivating factors or underlying imperatives identified above mandate the examination of certain types of things, specifically socio-economic inequality and environmental harm. The intention here is to study these problems within a certain sphere. That environmental conflict *in general* is a worthy realm of inquiry has already been established, but the sphere of inquiry is further qualified, it is environmental conflict within *advanced capitalist liberal democracies*. There are two main reasons for this; first, because New Zealand falls into this political-economic category, and secondly, because this category includes a significant number of nations which, although not necessarily dominant in terms of aggregate population, are certainly responsible for a vast and disproportionate segment of the planet's resource consumption, and are directly or indirectly responsible for much environmental degradation. This is not to discount the importance of environmental conflict within other social forms, but its specificity will inevitably limit the applicability of the findings of the project to this category. For much of the thesis the focus is even narrower than this, and despite it being generally theorised at the category level, the model is ultimately tailored to New Zealand's geo-historical context, and both of the subsequent case studies are New Zealand examples.

The assumption here that (i) business dominance *potentially* exists (in the realm of environmental conflict), and (ii) that it is a *probable* source of various significant forms of harm, stems from three bases.

The first foundation is that of the crudely empirical – which I take here to be the level of readily available and unprocessed⁵² data. It is certainly the case that recent New Zealand history is riddled with examples of conflicts between developmental and environmental

⁵¹ As Alex Callinacos notes: "Now while social change is very frequently associated with conflict, the reverse does not necessarily hold. Conflict may be endemic and intense in a social system without causing any basic structural change." 1987, *Making History: Agency, Structure and Change in Social Theory* Polity Press, Cambridge, p. 40.

⁵² By which I mean data that has not been collected or analysed for the particular purpose of studying business dominance in this realm.

interests. Until the early 1980s the state was itself the major developmental protagonist through its extensive involvement in the construction and operation of major infra-structural projects and various wealth generating ventures. Since this period the state's direct participation in such projects has rapidly declined (this transition is discussed in depth throughout the case studies) with private enterprise now being the dominant developmental force.⁵³ One prominent example in this latter period was the 'Fast Ferries Case' of 1994-5. This case arose in response to the commencement of a fast (37-38 knots) catamaran service for cars and passengers between Wellington and Picton via the Tory Channel and inner Queen Charlotte Sound. The service was operated by NZ Rail (later Tranz Rail) the monopoly owner and operator of New Zealand's rail network, with an effective monopoly on the inter-island ferry service. The basic issue was the impact of the wash from the fast ferries which was substantially greater than that generated by conventional ferries. Two legal actions were taken by those opposed to the service. The first was to seek an interim enforcement order to stop the ferries operating. This was sought by a coalition of residents (Save the Sounds - Stop the Wash) in conjunction with local Iwi (Te Atiawa). This effort failed, in great part, because Judge Treadwell of the Planning Tribunal decided that these groups would be unable to compensate NZ Rail for any losses incurred if the order was not confirmed at a full hearing (through damages being awarded). The second action was an application for a permanent enforcement order taken by the same groups plus the Minister of Conservation. Following a lengthy hearing at which a great range of evidence, technical and otherwise, was submitted, Judge Treadwell decided not to make an enforcement order constraining the operation of the ferries. Costs in the region of forty thousand dollars were awarded against the Coalition/Te Atiawa and the Minister, to be split equally. The wording of the decision and the potential costs of further legal action effectively ruled out the possibility of an appeal to the High Court.⁵⁴

A number of features stood out which raised questions about the ability of business to dominate in such disputes. I will only mention a couple here: First, the ferries were allowed to run in the interim almost solely because of the Maori and environmental interests' inability to pay any potential damages – a resource issue; Secondly, the Judge made reference in his ruling to a remarkable and indeed highly questionable ecological assumption – which was that as the ferries had already been running for some time (note that this would not have been the case if the interim enforcement order had been granted) a new equilibrium had been established, and this was itself desirable or at least consistent with the principle of sustainability. However, not only was it highly contentious as to whether a new equilibrium had indeed been established, the judge's point also displayed little regard to the environmental costs incurred in this

⁵³ This transition was part of a major transformation of the structures of government in New Zealand. A significant body of literature deals with this process – much of which is touched upon at one point or another over the course of this thesis. For particular reference to the state's changing role from major developer to a more hands off function see: T. Bührs, and R. Bartlett, 1993, *Environmental Policy in New Zealand: The Politics of Clean and Green?* Oxford University Press, Auckland, Ch. 4; P. Ali. Memon, 1993, *Keeping New Zealand Green: Recent Environmental Reforms* University of Otago Press, Dunedin, *passim*; S. Rainbow, 1993, *Green Politics* Oxford University Press, Auckland, Ch. 1.

⁵⁴ See: *Marlborough District Council v NZ Rail; Save the Sounds – Stop the Wash v NZ Rail* Planning Tribunal Decision W40/95. See also: B. Pardy, 1995, "Fast Ferries: New Equilibrium Versus Ecological Sustainability" *New Zealand Law Journal* June, pp. 202-4; S. Kos, and S. Bielby, 1995, "Fast Ferries Decision: Seeing Sense in its Wake" *New Zealand Law Journal* November, pp. 363-8.

transition – his interpretation of the principle of sustainability was clearly out of line with its wider use; Thirdly, greater force was applied by the judge to his decision through his assertion that the fast ferry service was of such importance for the ‘sustainable’ management of New Zealand as a whole, as to weigh against basic environmental principles enshrined in Part II of the *Resource Management Act 1991*. This strongly pro-development argument was out of step with the received understanding of the intent and operation of the Act; Lastly, the awarding of costs against those seeking an enforcement order established a precedent (real or not - for whether other Planning Tribunal judges would follow this trend was unclear) which was a strong disincentive for other community groups to pursue environmental matters in the Courts.

This is only a single straight-forward example⁵⁵, it may or may not be representative of a wider societal tendency, and undoubtedly there will be examples where other causal mechanisms lead to contrary results. But the issue here is that it suggests *ipso facto* the potential operation of business dominance and that such influence may at times result in significant environmental harm.

The second foundation for research into this subject is the existing body of research into business dominance in environmental conflict (NB. the wide interpretation of conflict adopted above allows the inclusion of studies which deal with policy, regulatory, planning, ex ante disputes over existing uses, and general political struggles). Most of the following work is alluded to in some form within Chapters Four and Five. Also, this is a representative rather than comprehensive survey, its purpose is to add force to the *prima facie* justification of this project.

Of those who have studied the role of business in environmental conflict the greatest number can be said to be neo-pluralists.⁵⁶ This is because pluralism, generally, is predisposed to the study of interest group politics, and especially instances of observable group conflict. Neo-pluralists – such as the later Dahl, Schattschneider, Polsby, Lindblom and Nadel⁵⁷, among others – whilst acknowledging the importance of political interaction between diverse interests, also acknowledge (to differing degrees) the exercise of non-observable power and the existence of pervasive inequalities, particularly the privileged position of business (that is disproportionate with, and subversive of, the basic liberal democratic principle of formal democratic equality).⁵⁸ Hence the focus upon the role of business within environmental

⁵⁵ Although it is not difficult to think of other New Zealand cases; such as the series of disputes over large scale gold mining on the Coromandel Peninsula. In one case, that of Cyprus Gold NZ Ltd's Golden Cross mine in the Waitekauri valley, the environmental and Maori advocates – the Coromandel Peninsula Watchdog group – were unable to pursue their case in the High Court due to the costs of litigation. The vast tailings dam at the mine, which was a major concern of opponents, subsequently began to subside necessitating a huge reinforcing project itself of questionable viability. J. Dixon, 1991, “Coromandel Gold: Conquest and Conservation” in; J. Connell, and R. Howitt, (eds), 1991, *Mining and Indigenous Peoples in Australasia* Sydney University Press/Oxford University Press, Melbourne. Also, F. Macdonald, 1989, “The Battle for Paradise: Mining on the Coromandel” *New Zealand Listener* Vol. 124, No. 2750, 10-16 June, pp. 14-17, 30.

⁵⁶ Although many of these studies are somewhat eclectic, also drawing upon anti-pluralist (eg. Lowi), corporatist and even Marxist and Weberian structural theories.

⁵⁷ Cf. R. Dahl, 1982 *Dilemmas of Pluralist Democracy - Autonomy vs Control* Yale University Press, New Haven and London; E. Schattschneider, 1975, *The Semisovereign People* Dryden Press, Hinsdale Ill.; N. Polsby, 1963, *Community Power and Political Theory* Yale University Press, New Haven; C. Lindblom, 1977, *Politics and Markets* Basic Books, New York; 1980, *The Policy Making Process* (second edition), Prentice-Hall, New Jersey; M. Nadel, 1976, *Corporations and Political Accountability* D.C. Heath, Lexington Ma.

⁵⁸ P. Dunleavy, and D. O'Leary, 1987, *Theories of the State: The Politics of Liberal Democracy* Macmillan, Basingstoke, p. 275; W. Kelso, 1978, *American Democratic Theory: Pluralism and its Critics* Greenwood Press, Connecticut, pp. 19-29; C. Stone, 1980, “Systemic Power in Community Decision Making” *American*

conflict. A seminal study of business dominance in environmental politics was Crenson's comparative analysis of corporate decision making within the U.S. steel industry with regard to air-pollution effects. Crenson highlighted the importance of non-decision making and agenda control as instruments of corporate power.⁵⁹ Much more recently, Schrecker has analysed struggles over the regulation of industry's environmental impacts. His position is roughly comparable to that of Lindblom, retaining a focus upon interest group politics whilst arguing with some force that business is privileged within environmental disputes, and pointing to the existence of a variety of causal mechanisms which give rise to this dominance (such as disparate financial and organisational resources, the role of private property rights, the ability to inflict significant sanctions upon such society, the power to 'define reality', and problems of collective action – all of which are incorporated in my analytical framework⁶⁰).⁶¹ In addition to these 'pluralist' studies, there are 'cross-over' analyses which draw upon both pluralist and 'political economy' (which I use here to refer to structural theories such as Marxist and Weberian interpretations) approaches. One such historical study (Blowers⁶²) examines the strategy of a large-scale polluter (a brick works) in countering environmental opposition over an extended period of time. Blowers, following Crenson, notes that the business was able to exert a high degree of control over the political process due to the operation of such mechanisms as agenda control and non-decision making. But he also incorporates a wider structural element in his analysis. Most notably, he suggests that the strategic power of the business fluctuated over time due to the relative strength of the economy – when the wider economy was strong the company was less powerful and vice versa.⁶³ A more theoretically

Political Science Review Vol.74, No.4, pp. 987-90. A discussion concerning the general characteristics of the classical and neopluralist positions is to be found in Chapter Two.

- ⁵⁹ M. Crenson, 1971, *The Un-Politics of Air Pollution: A Study of Non-Decision Making in the Cities* John Hopkins Press, Baltimore. Crenson's study proceeded from the principles of classical pluralism – including the flawed positivist notion that it was possible to divest the research exercise of bias – but in terms of analysing power he was concordant with the revised pluralism of P. Bachrach, and M. Baratz. Cf.: 1962, "Two Faces of Power" *American Political Science Review* Vol. 66, No. 4, pp.947-52; 1963, "Decisions and Non-Decisions: An Analytical Framework" *American Political Science Review* Vol. 67, No. 3. Also, R. Wolfinger, 1972, "Non-decisions and the Study of Local Politics" *American Political Science Review* Vol. 65, pp. 1063-80.
- ⁶⁰ The collective action issue, a central focus of rational choice theory, is another strand of analysis which is drawn upon here. That is, following: M. Olson, 1965, *The Logic of Collective Action: Public Goods and the Theory of Groups* Harvard University Press, Cambridge Ma; A. Downs, 1957, *An Economic Theory of Democracy* Harper and Row, New York; But more recently, and of most relevance here, in the form adapted by critical theorists – C. Offe, 1985, *Disorganized Capitalism* Basil Blackwell, Oxford, *passim*; B. Hindess, 1989, *Political Choice and Social Structure: an Analysis of Actors, Interests, and Rationality* Elgar, England, *passim*.
- ⁶¹ T. Schrecker, 1984, *Political Economy of Environmental Hazards* Law Reform Commission of Canada, Ottawa; 1985, "The Mobilisation of Bias in Closed Systems: Environmental Regulation in Canada" *Journal of Business Administration* Vol. 15, pp. 45-63; 1985, "Resisting Regulation: Environmental Policy and Corporate Power" *Alternatives* Vol. 13, No. 1, pp. 9-21. Another excellent discussion of inequalities of power in environmental conflict, and the issue of corporate power is; D. Amy, 1987, *The Politics of Environmental Mediation* Columbia University Press, New York. pp. 199-212, and *passim*.
- ⁶² A. Blowers, 1983, "Master of Fate or Victim of Circumstance - The Exercise of Corporate Power in Environmental Policy-Making" *Policy and Politics* Vol. 11, No. 4, pp. 393-415; 1984, *Something in the Air: Corporate Powers and the Environment* Harper and Row, London; A. Blowers, and D. Pepper, (eds), 1987, *Nuclear Power in Crisis: Politics and Planning for the Nuclear State* Nichols Publishing Co., New York, pp. 1-35. An extensive empirical study with similar conclusions is; M. Hill, S. Aaronovitch, and D. Baldock, 1989, "Non-decision Making in Pollution Control in Britain: Nitrate Pollution, the EEC Drinking Water Directive and Agriculture" *Policy and Politics* Vol. 17, No. 3.
- ⁶³ Due to the relative significance of the threats of investment withdrawal and job losses associated with the increased costs of pollution control. See here; R. Kazis, and R. Grossman, 1982, *Fear at Work: Job Blackmail, Labor and the Environment* Pilgrim Press, New York. Schrecker makes this same observation

sophisticated crossover study is Lake and Disch's analysis of hazardous waste conflicts.⁶⁴ This analysis identifies the operation of pluralist interest group conflict over the siting of hazardous waste facilities. In the conflicts studied the state sought to remain as neutral as possible, avoiding partisan engagement, and restricting its role to that of providing an arena for conflict. However, while classical pluralism has traditionally conjectured the state's role in interest group politics to be just so, Lake and Disch suggest that the state withdrew from direct involvement because of the strategic necessity that it sustain the conditions of profitable capital accumulation. It did so in these instances by defining hazardous waste as a locational issue rather than as an issue about the production process itself (viz. the internalisation, mitigation or eradication of environmental costs at the point source). Meaning the state conveniently avoided making any threats to the process of accumulation whilst enabling a process of political legitimation to occur. They assert that the pluralistic form of the politics was a function of, and served to obfuscate, deeper structural mechanisms. The Lake and Disch study is a very good analysis, and it is my intention to pursue this type of investigation – although it will be more firmly grounded in the political-economy standpoint.⁶⁵

The political economy approach to environmental politics is strongest outside of political science. Disciplines such as geography, planning and political-ecology have been more profoundly influenced by European sociological traditions. More accurately, each of these disciplines is home to groups of scholars who utilise sophisticated theories of structural dominance to comprehend relationships between various socioeconomic groups, between those groups and nature, and with the products of those relations. The literature is abundant, so rather than compile even a 'representative' sample, I will highlight a few of the main influences upon this project. First, the geographer David Harvey (who proceeds from a geographical-historical materialism) has written extensively, and with great erudition and breadth, in the areas of Marxist economic and political theory, urban geography, environmental and social justice, and on the dialectics of social and environmental transformation. There are many elements of his work which are integrated into the following studies, but probably of greatest value here are his efforts to reconcile Marxist economic theory with the 'ecological' sensibilities of those such as Aldo Leopold, and hence to develop an ecological-Marxist critique of capitalism.⁶⁶ However, while the pluralist/political-science studies tend to be overly

elsewhere; 1990, "Resisting Environmental Regulation: The Cryptic Pattern of Business-Government Relations" in R. Paehlke and D. Torgerson (eds), *Managing Leviathan* Broadview Press, Ontario, p. 187.

⁶⁴ R. Lake, and R. Disch, 1992, "Structural Constraints and Pluralist Contradictions in Hazardous Waste Regulation" *Environment and Planning A* Vol. 24, pp. 663-81. See also; R. Lake, and R. Johns, 1990, "Legitimation Conflicts: The Politics of Hazardous Waste Siting Law" *Urban Geography* Vol. 11, No. 5, pp. 488-508.

⁶⁵ Sandbach provides a useful review of both pluralist and Marxist analyses of environmental politics prior to 1980; F. Sandbach, 1980, *Environment, Ideology and Policy* Basil Blackwell, Oxford, Ch. 4.

⁶⁶ Cf: 1982, *The Limits to Capital* Basil Blackwell, Oxford. Which sets out a sophisticated reading of Marx's economic theory – note especially the work on value; 1989, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* Basil Blackwell, Oxford. An expansive study of the global development and transformation of the forms of capitalist accumulation, and of certain general effects that these transformations have wrought upon cultural conceptions such as space and time; 1993, "The Nature of Environment: The Dialectics of Social and Environmental Change" *The Socialist Register* 1993 pp. 1-51. For a discussion about the possibility of an ecological socialism; 1996, *Justice, Nature and the Geography of Difference* Blackwell, Cambridge Ma. Of particular significance here is the work of Redclift, Benton, Grundmann, Enzensberger and Martinez-Alier. Cf. M. Redclift, 1987, *Sustainable Development: Exploring the Contradictions* Methuen, London; M. Redclift, and T. Benton, (eds), 1994, *Social Theory and the Global Environment* Routledge, London; R. Grundmann, 1991, *Marxism and Ecology* Clarendon Press, Oxford; 1991, "The Ecological

empirical at the cost of theoretical sophistication, these Marxist works tend to be abstract. Their concerns are with the explication of wider structural tendencies and mechanisms which sustain relations of domination – how causal structures manifest themselves at specific geo-historical conjunctures is of less immediate significance. In the planning literature, which is interesting from a resource management perspective because of its directly applied nature, there is the work of John Forester whose sympathies ultimately lie with Habermasian Critical Theory; that is, with an express interest in impediments to ‘rational’ communication. His *Planning in the Face of Power* provides a useful review of theories of structural dominance and the practical imperatives and roles each perspective establishes for planners.⁶⁷ Again, Forester’s work here is on a general level. So with regard to the question of business dominance the political economy and environment literature tends to operate at the category level. This does not mean that empirical work is absent from their analyses, but that where such observation occurs it is often focussed upon macro-analyses. Nevertheless, the tendencies theorised by Harvey, Benton, Redclift, Grundmann and Forester, add to the *prima facie* case for the in-depth investigation of business dominance in environmental conflict.

This leads on to the third predicate, which is hypothesised directly from within political economy. The argument is based upon predominantly, but not exclusively; Marxist, neo-Marxist and post-Marxist analyses of advanced capitalist society. On this basis (and here deliberately without reference to extant analyses, from within this tradition, of environmental problems) it is possible to speculate about features – enduring socio-economic structures, forces and mechanisms – which are likely to effect environmental conflict. Given that environmental conflict will often involve business interests, the state, and actors from within civil society, it will undoubtedly be both feasible and appropriate to *derive* potential facets, including avenues of concern, from this body of general theory.⁶⁸ More specifically, and concretely, it is possible through a sideways movement – that is, through a homology – to elicit potential characteristics from other types of domination already rigorously theorised. The most obvious example here being business dominance as operative in the capital-labour relation. Now the capital-labour relation ultimately differs markedly from the capital-environment relation, however, deconstruction⁶⁹ and reconstruction in turn, with reference to emergent and specific characteristics of environmental conflict, can provide some enlightenment about this phenomenon. Another example of this is the relevance of the Marxian theory of value when considered in conjunction with work in systems/ecological/energy theory.⁷⁰

Each of these strands is at once a *partial* argument for investigation into business dominance in environmental conflict as well as a *partial* theoretical and methodological basis for such investigation. This fragmentation poses a challenge, which is the appropriation and

Challenge to Marxism” *New Left Review* No. 187, May/June, pp. 103-20; H. Enzensberger, 1974, “A Critique of Political Ecology” *New Left Review* Vol. 84, pp. 3-31; J. Martinez-Alier, 1995, “Political Ecology, Distributional Conflicts, and Economic Incommensurability” *New Left Review* No. 211, May/June, pp. 70-88.

⁶⁷ J. Forester, 1989, *Planning in the Face of Power* University of California Press, Berkeley. See also: M. Dear, and A. Scott, (eds), 1981, *Urbanization and Urban Planning in Capitalist Society* Methuen, London (especially the chapters by Hirsch, Harvey, Edel, Mollenkopf, Szelenyi and Boddy); N. Low, 1991, *Planning, Politics and the state: Political Foundations of Planning Thought* Unwin-Hyman, London.

⁶⁸ See later discussion on the analogical-retroductive movement in science – see 2.3.(iii).

⁶⁹ I do not use this term in any specific post-modernist or post-structuralist sense. Instead, it simply represents an analytical process of decomposition and abstraction.

⁷⁰ This is the avenue by which the work of those such as Wilden is incorporated into the theoretical framework.

synthesis of the strengths and insights of each level of analysis into a mature and comprehensive, vertically integrated approach.⁷¹ While I acknowledge that the internal reasoning and philosophical foundation of each of these approaches is in some way contradictory or exclusive, and that a crude amalgamation is a thing to be avoided, there is still a need to see how these levels (in some form) can *speak to each other*. To do this requires the examination of the philosophical foundations of scientific discovery in general and social scientific discovery in particular. This project thus possesses a multi-levelled character.

1.5. Conclusion

In discussion thus far, I have argued that business power and dominance in environmental conflict is a *prima facie* obstacle to the achievement of, on the one hand, crucial sustainable relationships with the natural world (given the conception of the environmental problematique outlined), and on the other hand the ability of people to meaningfully participate in decision-making about their environments. Business power in the context of environmental conflict is thus a very worthy subject of inquiry. I then looked at some of the ways that people have set out to examine this phenomenon. My conclusion was that business power has been explored in diverse and often fruitful ways, but that they tend to be either system-wide analyses that are largely theoretical and are not thoroughly or deeply grounded in empirical work, or they have been relatively weak on the theory, and they focus narrowly upon *specific* mechanisms of business dominance. I then asserted that the goal of this project was to try and bring these strands of analysis together: First, by vertically integrating theory about wider structural tendencies in political economy with the work on specific mechanisms of business dominance (such as disparate resources or property rights); And secondly, by horizontally integrating work that had been done on those various mechanisms. This of course raises difficulties on meta-theoretical, theoretical and empirical grounds, and this thesis can be understood as an effort to work out this problem. I begin by devoting the next chapter to the meta-theoretical level. I do so to clarify some basic questions about first, the structure of the natural and social worlds that are the object of this study, and secondly the practices (possibilities and limitations upon) of scientific and social scientific investigation. I frame my discussion around a basic question of what a realist philosophy of science can do for resource management in general (this is a thesis in resource management), and my study in particular.

⁷¹ Mollenkopf (a geographer) expresses such a need in; M. Dear, and A. Scott, (eds), 1981, *Urbanization and Urban Planning in Capitalist Society* Methuen, London, p. 334.

Critical Realism

Clearing the Path for a Critical Resource Management

2.1 Introduction

Resource management¹, be it as abstract inquiry or as an applied activity, is an inherently indeterminate field. To attempt to pin it down in some rigid form is neither necessary nor desirable, but it is possible (and useful) to identify some of its defining characteristics without substantially constraining its possibilities. First of all, like the understanding of conflict described earlier, resource management is concerned with relationships between people, and/or between people and nature, and the products (artefacts) of such relations. Obviously this covers the whole of social life, and must be further narrowed to a central concern with the human-environment nexus (mutuality) which is the absolute core of the notion. This can of course be said of many specific disciplines, which leads on to the second characteristic in which resource management can be considered either in an oxymoronic sense as a non-disciplinary discipline, or alternatively as a mega-discipline. My preference is for the former. On this understanding resource management is at once multi-disciplinary, inter-disciplinary and trans-disciplinary.² Thirdly, resource management necessarily involves an applied element. That is, even at its most abstract, inquiry in this field must have some intentional implication for work-in-the-world. Associated with this applied element is a fourth feature which is a belief (acknowledged or not) in the possibility of positive interventions in the environment. Such interventions may involve not only the transformation of material relations, but also efforts to reproduce or protect (an intervention to prevent other types of interventions or consequences thereof) existing states. This qualitative assertion is inevitably contentious –

¹ The understanding of resource management adopted here conflates the historical distinction described by Bryan Norton, between *resource* management and *environmental* management. He characterises resource management as reductionist and production oriented – the *wise use* approach to resource producing sub-systems. In contrast, environmental management focuses upon the larger autonomously functioning environmental context. B. Norton, 1991, *Toward Unity Among Environmentalists* Oxford University Press, New York.

² In a sense, but not fully, this is a repudiation of the historical fragmentation and institutionalisation of knowledge and its production, within disciplines (see P. Manicas, 1987, *A History and Philosophy of the Social Sciences* Basil Blackwell, Oxford, pp. 193-212.). It is not, however, a rejection of the advances which such specialisation can bring but rather the affirmation of the need to see boundaries as blurred and interconnected, and ultimately the need to take a global view.

for critiques of the enlightenment tradition have, *inter alia*, focussed upon such ideas. However, the position taken here is that this essential standpoint must be qualified by a cautionary understanding of human knowledge and action as contingent, unavoidably historical and thus relatively transitory, as fallible, and as subject to a proliferation of motivations. This does not mean, however, that the possibility of positive intervention should be abandoned – a position which shall be developed over the course of this chapter.

In the following discussion this initial open-ended depiction is set to one side. The intention here is to move backwards or downwards³ into the realm of the philosophy of science – to introduce, review and advocate a *realist* philosophy of science – specifically, a sophisticated variant that has come to be termed *critical realism*. This is to make explicit a range of important assumptions about the objects and practices of science in general and social science in particular. In doing this I hope to describe how a pluralistic, critical and sometimes necessarily emancipatory scientific resource management is possible.⁴

2.2. Critical Realism and the Philosophy of Science

The development and advocacy of realism as a coherent and credible philosophy of science has been due to the efforts of many individuals. Since 1975 the most influential contribution to this discourse has been that of British philosopher Roy Bhaskar.⁵ Bhaskar's specific formulation has come to be labelled critical realism – itself an elision of his philosophy of science, *transcendental realism*, and special philosophy of the human sciences, *critical naturalism*.⁶ My intention is to engage with Bhaskar's philosophy (and with that of others who have contributed to this development – supporters and detractors alike) by discussing in turn his transcendental realist arguments, his critical naturalist extension, and by reviewing some miscellaneous elements within his schema which cast some light upon scientific and historical practices, and the implications of such.

In its broadest sense philosophical 'realism' involves the elemental claim that some entity (universals, material objects, causal laws, numbers, probabilities, propositions, etc.) exists.⁷ For critical realism as a philosophy of science – and as Bhaskar asserts – as a philosophy *for* science, its claims are in the first instance those of *scientific realism*: that the objects of scientific enquiry exist and act "absolutely (for the most part in natural science) or relatively (for the most part in social science) independently of the enquiry, or more generally of human activity".⁸ This scientific realism takes on a particular form. Instead of examining

³ Metaphorically speaking, as what is involved is the distillation, clarification and consequent development of an implicit philosophy.

⁴ This is not, however, to articulate a foundationalism, for the following argument is grounded in action. Indeed, as Wittgenstein highlighted; "Giving grounds [must] come to an end sometime. But the end is not an ungrounded presupposition: It is an ungrounded way of acting". L. Wittgenstein, (G. Anscombe, and G. von Wright eds) 1969, *On Certainty* Harper and Row, New York, Sec. 110.

⁵ P. Baehr, 1990, "Critical Realism, Cautionary Realism" *Sociological Review* Vol. 38, No. 4, p. 765.

⁶ D. Corson, 1991, "Bhaskar's Critical Realism and Educational Knowledge" *British Journal of Sociology of Education* Vol. 12, No. 2, p. 223.

⁷ C. Lawson, et al., 1996, "Realism, Underlabouring and Institutions" *Cambridge Journal of Economics* Vol. 20, p. 140; R. Bhaskar, 1986, *Scientific Realism and Human Emancipation* Verso, London, p. 5.

⁸ R. Bhaskar, "Realism" in: Outhwaite, W. and Bottomore, T. 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, p. 547; R. Bhaskar, 1986, *Scientific Realism and Human Emancipation* Verso, London, p. 5. It is necessary that discourse be about something other than itself

specific sciences and their assumptions about the particular objects of their enquiry (a first-order or internal realism) Bhaskar posits a metaphysical or transcendental realism: “...consisting in an elaboration of what the world *must* [my emphasis] be like *prior* to any empirical investigation of it and *for* any scientific attitudes or activities to be possible”.⁹ Lawson *et al.* point out that in this procedure *must* “does not signify some ahistorical, infallible conception of the acquisition of knowledge; the premises accepted in a transcendental argument are always likely to be replaced, recast or become unacceptable”.

In pursuing the transcendental form, Bhaskar comprehends a particular relationship between philosophy and science. Like Kant (whose transcendental idealism is an antecedent of Bhaskar’s theory¹⁰) Bhaskar perceives philosophy and science as two different things, neither reducible to the other. Philosophy distinguishes itself by the types of considerations and arguments it employs – a distinction principally founded upon its use of pure reason.¹¹ However, while remaining distinct, philosophy and science are necessarily connected. On the one hand, the deployment of pure reason is itself impossible without reference to something (a practice or object) other than itself. For the philosophy of science “analyses notions that denote only on the condition that they are used syncategorematically, that is under some particular description, in science”.¹² An important consequence of this connection is that the historical and ‘unfinished’ state of science must be mirrored in any philosophy of science;¹³ hence critical realism is inevitably historically contingent and open ended.¹⁴ On the other hand, science cannot separate itself from philosophy, for: “underpinning all substantive inquiries there are always particular philosophical and methodological assumptions ... a sometimes tacit, sometimes explicit, level of general concepts and broad perspectives on the nature of the subject to be investigated and the form of explanation appropriate to it”.¹⁵

So what function can a critical realist philosophy perform? Bhaskar appropriates the Lockean idea of the philosopher as an ‘underlabourer’ for science. Under this description the purpose of philosophy is to remove ideological and other obstacles to intellectual coherence¹⁶ – it can clear the path for the sciences (and indeed other social practices). On one level it carries clarificatory, defensive and critical implications for first-order inquiry. On another level, or in

“or else it even cannot be about itself” (the self referential paradox). R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, pp. 163-4; Also Cf. Ch. 2.1.

⁹ R. Bhaskar, 1986, *Scientific Realism* p. 6.

¹⁰ However, as Bhaskar notes:

If philosophy is to be possible (and I want to contend that it is in practice indispensable) then it must follow the Kantian road. But in doing so it must avoid any commitment to the content of specific theories and recognize the conditional nature of all its results. Moreover it must reject two presuppositions which were central to Kant’s own philosophical project, viz. that in any inquiry of the form ‘what must be the case for \emptyset to be possible?’ the conclusion, X, would be a fact about us and that \emptyset must invariably stand for some universal operation of the mind. That is to say, it must reject the idealist and individualist cast into which Kant pressed his own inquiries.

R. Bhaskar, 1979, *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Human Sciences* (first edition) Humanities Press, New Jersey, p. 6.

¹¹ R. Bhaskar, 1979, *The Possibility of Naturalism* p. 8.

¹² *Ibid.*; *Scientific Realism* pp. 12-13.

¹³ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 141.

¹⁴ “...activity, conceptualisation and analysis may each be normatively corrigible, socially contested, spatially localised and temporally transient” R. Bhaskar, 1986, *Scientific Realism and Human Emancipation* Verso, London, pp. 11-12.

¹⁵ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 141.

¹⁶ P. Baehr, 1990, “Critical Realism, Cautionary Realism” *Sociological Review* Vol. 38, No. 4, p. 766.

a less immediate sense, such reflection can shed light upon the cognitive schemes, conceptual tools, etc., at work behind scientific practices.¹⁷

But critical realism cannot act as an overseer or judge of science. The transcendental approach (ie what must be the case for the ensemble of scientific activities to be possible?) rules out the possibility of a substantive *apriorism* where philosophy legislates in advance for the use of specific scientific procedures, or indeed, predicts the substantive findings of science.¹⁸ This is a fundamental constraint that differentiates the realist project from such historical enterprises as absolute idealism and post-Cartesian, pre-critical rationalism (including empiricism).¹⁹ On this understanding philosophy can produce knowledge, but only a sort of second-order knowledge; of the conditions necessary for the production of knowledge.²⁰ One implication of this is that philosophy does not “produce any radically new knowledge in the way that science can but makes explicit that knowledge which was already implicit in some other practice”.²¹ It is my view that despite these very real constraints, such a philosophical clearing is indispensable for resource management.

Finally, it is essential that I situate the realist position within the spectrum of philosophy of science/social science. Realism spans or inhabits a broad philosophical divide, and as a consequence is often perceived, for better or worse, as a compromise position. This position can be seen as an attempt to avoid two sets of mistakes: First, to circumvent the diametric and fundamental errors of, in the first instance, the reduction of being to knowledge – for this results in the privileging of mind as a source of meaning as is the case with idealism, most recently in the form of constructivism (this is what Bhaskar has labelled the *epistemic fallacy*, and which necessarily involves, among other things, an anthropomorphism which is problematic in environmental terms²²). And in the second instance, and conversely, the reduction of knowledge to being, as evidenced in more extreme empiricist ontologies (the *ontic fallacy*); Secondly, to avoid the already noted mistake of reducing either science to philosophy or philosophy to science (the *speculative* and *positivistic illusions* respectively).²³

Christopher Gosden, an anthropologist who is a realist, provides a succinct description of this perspective:

Realism has elements of both positivism and constructivism. For realists (eg Bhaskar) the world exists independently of us and we can only attempt to understand the nature of the world's existence. However, we never apprehend the world as objective observers, as positivists claim we can, but as beings involved both in the world and in social relations.²⁴

Later in his discussion he adds to this.

¹⁷ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” pp. 140-1.

¹⁸ R. Bhaskar, 1986, *Scientific Realism* p. 6; R. Bhaskar, 1989, *Reclaiming Reality: A Critical Introduction to Contemporary Philosophy* Verso, London, p. 3.

¹⁹ R. Bhaskar, 1979, *The Possibility of Naturalism* pp. 8-9.

²⁰ *Ibid.*, p. 10.

²¹ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 141.

²² Due to its failure to adequately account for, *inter alia*, material causality. C. New, 1995, “Sociology and the Case for Realism” *The Sociological Review* p. 814, and *passim*.

²³ R. Bhaskar, 1986, *Scientific Realism* pp. 22-3. There are some excellent discussions of the historical context and development of realism in the philosophy of science. Cf. W. Outhwaite, 1987, *New Philosophies of Social Science* Macmillan, London; P. Manicas, 1987, *A History and Philosophy of the Social Sciences* Basil Blackwell, Oxford.

²⁴ C. Gosden, 1994, *Social Being and Time* Blackwell, Oxford, p. 10.

For realists, the structure of the world limits what we can say, but these limits are determined not just by reality itself but also by our forms of knowing and telling. Knowledge through involvement in a material reality is the key to realism....²⁵

The remainder of this chapter is devoted to a fuller explication of this position.

2.3. Transcendental Realism: A Realist Theory of Science

So far I have been concerned with the issues of what the philosophy of science can do for science. I now turn to the results of the transcendental analysis of science – specifically, in this subsection, the transcendental consideration of activity in the *natural sciences*. Out of necessity, discussion is restricted to a general review focussing upon the conclusions of Bhaskar's analysis, rather than upon their derivation. There are three main elements of transcendental realism that are of immediate relevance in this context; the split between the transitive and intransitive dimensions; the understanding of the world as structured, differentiated and changing; and the depiction of scientific discovery and development.

2.3.(i) *The Distinction Between the Transitive and Intransitive Dimensions*

The phenomenon of scientific discontinuity and change poses an immanent challenge to the privileged relationship between subject and object – between thought and things – found in classical philosophy (both in the idealist and empiricist polarities).²⁶ To avoid such errors (the ontic and epistemic fallacies), and in order to provide an adequate account of scientific activity it is necessary to make a rigorous distinction between two domains; the *intransitive* and the *transitive*. The first is born of the principle of the existential intransitivity of objects – that is, that “things in general exist and act independently of their descriptions”.²⁷ This is the domain of the objects of scientific knowledge – “real material things and structures possessed of their own tendential causal powers: for instance the existence of planets in motion or the existence of market economies prone to crises of accumulation and profit”.²⁸ The second, concomitant, domain is underpinned by the principle of the historical transitivity of knowledge – “that we can only know things under particular and potentially transformable descriptions”.²⁹ This is the realm of changing cognitive objects – historically and culturally situated – thus the above noted planetary and economic structures have been variously described and redescribed in “Ptolemaic, Copernican and Newtonian astronomy” and in “Keynesian and Marxist accounts of capitalism” respectively.³⁰ Clearly there can be no unhypothetical beginning in science.³¹

²⁵ Ibid., p. 11.

²⁶ Either through thought being considered to be a mechanical function of things (as in empiricism), or conversely, through the “activity of creative subjects [being] regarded as endowing the world with things (as in idealism)”. R. Bhaskar, 1975, “Feyerabend and Bachelard: Two Philosophies of Science” *New Left Review* No. 94, p. 32.

²⁷ R. Bhaskar, 1991, *Philosophy and the Idea of Freedom* Basil Blackwell, Oxford, p. 24; 1993, *Dialectic: The Pulse of Freedom* Verso, London, p. 399.

²⁸ P. Baehr, 1990, “Critical Realism, Cautionary Realism” p. 767.

²⁹ R. Bhaskar, 1991, *Philosophy and the Idea of Freedom* Basil Blackwell, Oxford, p. 24.

³⁰ P. Baehr, 1990, “Critical Realism, Cautionary Realism” p. 767. Science must be understood as a social enterprise.

³¹ R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, p. 164. Another consequence of this is highlighted by Manicas: “... any division of labour as regards the attempt to theorize structures and their relations can, ultimately, be defended as no more than a convenience.” P. Manicas, 1987, *A History and Philosophy of the Social Science* p. 281.

In making this distinction Bhaskar rejects any sort of foundationalism, whether in mental categories or in the world-out-there. By acknowledging the hiatus between the intransitive and transitive dimensions, and their dialectical relationship, Bhaskar accounts for the inexorably changing scientific understanding of a real world.

2.3.(ii) A Structured, Differentiated and Changing World

The intransitive dimension is characterised as: (i) *Stratified* into three domains.

1. The empirical – made up of experiences
2. The actual – made up of events
3. The real – made up of entities, underlying structures, mechanisms etc.

These strata are distinct, with movements from (3) to (2), and from (2) to (1), being contingent.³² For example, between (2) and (1), it is possible for events to occur without being experienced, and moreover, that those events which are experienced may be so in different ways by different observers.³³ The differentiation between levels (2) and (3) is a critical one. At level (3) the structure of a thing is “constituted by its causal powers which, when exercised, manifest themselves as tendencies”³⁴, that is, a propensity or capacity to act in certain ways. But such underlying structures must be distinguished from events. For tendencies may exist unexercised, they may also neutralise one another so that no event (level 2) takes place – with no potentially observable change in reality³⁵ – and they may act conjointly and complexly producing seemingly random events. It is not always the case that they will be manifest as observable constant conjunctions. Furthermore, the “non-identity of underlying structures and events implies that the operation of such structures will typically not be directly manifest in (but will be out of phase with) events, ie. they will be *transfactually*³⁶ operative”.³⁷ Bhaskar sums this up:

The logical form of a law of nature is given by the concept of a transfactually efficacious *tendency*, which may be possessed without being exercised, exercised without being actualised, and actualised without being empirically identified by human beings.³⁸

(ii) The interaction between causal mechanisms points to the *differentiation* of reality. The possibility or efficacy of the experimental procedure – the engineering of constant conjunctions within artificially closed systems – suggests, transcendently, that the world is differentiated (that single (or sets of) causal mechanism(s) and tendencies exist).

(iii) A *changing* world. The intransitive dimension must itself be understood as dynamic, and its innumerable elements – including fundamental natural laws – as variously and relatively enduring. Obviously, the æonic nature of the planets in motion seems timeless in

³² W. Outhwaite, 1987, *New Philosophies* p. 22.

³³ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 142.

³⁴ R. Bhaskar, 1994, *Plato Etc.* p. 258.

³⁵ W. Outhwaite, 1987, *New Philosophies* p. 22.

³⁶ The exercise of the causal powers of structure, that is, the working of a generative mechanism, e.g. as manifest in the operation of all the natural laws known to science, must be interpreted as applying transfactually, that is to say in closed and open systems alike ... The result of not interpreting laws transfactually is that the normic statements with which they are expressed are immediately falsified in open systems, and practical science is left without any epistemic credentials.

R. Bhaskar, 1993, *Dialectic* p. 405. Collier similarly notes that: “Positivism has problems accounting for applied science at all, since the rare conditions under which positivist assumptions seem to obtain (that is, in closed systems) are not the conditions in which the applied scientist is working. A. Collier, 1994, *Critical Realism: An Introduction to Roy Bhaskar's Philosophy* Verso, London, p. 220.

³⁷ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 142.

³⁸ R. Bhaskar, 1994, *Plato Etc.* p. 23.

comparison with, say, the specific properties of a rapidly mutating virus, nevertheless each is temporally contingent.

The understanding of the world as structured, differentiated and changing stands in stark contrast with the flat, unstructured, undifferentiated and uniform world of Hume and the empiricists – an implicit ontology comprised of atomistic events or states, constantly conjoined within apparently closed systems.³⁹ Critical realism posits a rich ontology that necessitates a complex comprehension of causal relations: “a multi-determined, multi-levelled, multi-linear, multi-relational, multi-angular, multi-perspectival, multi-determined and open pluriverse”.⁴⁰

2.3.(iii) *Depth Explanation: Scientific Discovery and Development.*

This transcendently derived ontology reflects back upon scientific activity – the clarificatory, defensive and critical moments alluded to above. Most significantly, it provides the basis for a rational account of scientific discovery and development.

Scientific investigation typically follows a four-phase pattern of development.⁴¹ The first phase involves the identification and description of some epistemically significant phenomenon. In phase two an explanatory model is constructed. Such a model will conjecture some transfactual mechanism or mechanisms, which, if real and act as hypothesised, would explain the phenomenon in question. This essential movement of thought has been termed ‘analogical-retroductive’, and involves the employment of existing cognitive/transitive resources,⁴² advancing by the use of such devices as analogical and metaphorical connections with already familiar mechanisms. Retroduction⁴³ inevitably raises existential questions, for “whether or not the postulated mechanism acts in the postulated way cannot of course be decided by theory alone, since in general a plurality of possible explanations will be consistent with the phenomenon”.⁴⁴ Hence the third phase consists of both the empirical scrutiny of the posited mechanism/s,⁴⁵ and the consideration and elimination of alternative explanations.

³⁹ W. Outhwaite, 1987, *New Philosophies* pp. 19-21; R. Bhaskar, 1989, *Reclaiming Reality: A Critical Introduction to Contemporary Philosophy* Verso, London, pp. 8-9. This is also a criticism of Cartesian reductionism – not the splitting up of the world into bits for the purposes of investigation (this is of course an indispensable, albeit not exclusive, way of learning about the world) but rather the ontological assumption that the world is simply an agglomeration of bits. Although as Levins and Lewontin note, “reduction as a method and reductionism as a world view feed on and recreate each other”. R. Levins and R. Lewontin, 1985, *The Dialectical Biologist* Harvard University Press, Cambridge MA.

⁴⁰ R. Bhaskar, 1993, *Dialectic* p. 53.

⁴¹ R. Bhaskar, 1986, *Scientific Realism* pp. 61-2.

⁴² And so science must be recognized as a thoroughly *social* endeavour.

⁴³ Patrick Baert explains:

Critical Realism draws on neither inductivism or deductivism. Instead it relies on retroduction (or sometimes called abduction). In the case of retroduction one tries to make sense of newly observed phenomena by drawing upon metaphors or analogies with mechanisms that are familiar. One identifies the deeper structures which account for the observations. Through retroduction critical realists attempt to comprehend the creative process of scientific activity. Relying upon retroduction, the laws uncovered within a realist programme do not refer to some logical necessity with *ceteris paribus* restrictions, but to unconditional natural necessity. The laws revealed are not counterfactual statements about what would occur at the empirical level if X, Y, Z, ... – they are statements about which underlying structures are at work.

It should be noted that while recognising certain merits of the critical realist project, Baert is not himself a critical realist. P. Baert, 1996, “Realist Philosophy of the Social Science and Economics: A Critique” p. 516.

⁴⁴ R. Bhaskar, 1986, *Scientific Realism* p. 61.

⁴⁵ The problems of empirical analysis are, for the greater part, issues pertaining to the specific sciences. However, it is important to highlight that in open systems the possibility of closure – and hence isolation of a single mechanism – will be limited. Critical realists normally limit the availability of experimental closure to

Finally, when the mechanism has been adequately identified and described,⁴⁶ it then becomes the phenomenon to be explained, and so begins the next cycle of investigation.⁴⁷ Hence the term *depth* explanation.

While this depiction of scientific development allows for the provision of “fuller, deeper and more comprehensive accounts of reality”⁴⁸, it does not in any way necessitate a monistic understanding of scientific progress. It is important to emphasise the *fallibility* of scientific theories and research programs. One crucial aspect here is that as successively deeper levels of reality are uncovered and explained, “knowledge at more superficial levels is typically revised, corrected or more or less drastically recast, issuing in a characteristic pattern of description, explanation and redescription for the phenomenon understood at any one level of reality”.⁴⁹ The transcendental realist account can thus rationally accommodate the epistemic breaks and ‘paradigmatic’ (indeed, any) changes, characteristic of the history and sociology of science.

Finally, this account carries critical implications, as Lawson *et. al.* explain:

The possibility of critique, and the role of philosophy, on this account is crucially bound up with a concern for ontology. Thus, in transcendently deducing an ontology which renders intelligible certain widely acknowledged features of the world, critical realism is not restricted to the clarificatory/descriptive moment. Instead the possibility is opened up for criticising positions which, in virtue of their ontological presuppositions, fail to render such phenomena, or others, which the standpoint purports to uphold, intelligible.

One such critical aspect is found in the transcendental realist emphasis upon explanation in science, as opposed to the positivistic preoccupation with prediction. This argument rests, in some part, upon the difficulties of obtaining decisive test situations (isolation and closure) because generative mechanisms are held to operate transfactually within complex open systems where constant conjunctions may be absent.⁵⁰ As I made clear above, complex open systems make up most of reality, and hence, positivism begins to look like an approach with very

the natural sciences, and even then it is necessary to be circumspect (see 1.3.(iii)). On retroduction in a similar context to that studied in this thesis, see P. Saunders, 1981, *Social Theory and the Urban Question* Hutchinson, London, pp. 17-18.

⁴⁶ Recognising here that scientists’ judgements are always fallible and their conclusions necessarily provisional.

⁴⁷ What I have described here is a straightforward treatment of discovery. It is useful to consider Bhaskar’s more complex **RRREI(C)** model of applied scientific explanation. Such explanation is generally a: much messier, less unilinear and more context specific affair But in so far as the explanation is of a phenomenon such as a typical open-systemic event, co-determined by a multiplicity of mechanisms, which has the character of a conjuncture, the explanation will depend upon the following steps;

- (a) Resolution of the events into components.
 - (b) Redescription of these components in a theoretically significant way so that theoretically established laws can be brought to bear on them
 - (c) Retroduction via such laws to possible antecedent causes.
- As there will be in general a disjunctive plurality as well as a conjunctive multiplicity of (possible) causes in open systems, the next step will consist in the;
- (d) Elimination of alternatives.
- This process will continue until;
- (e) Positive Identification of the generative causes at work in the production of the conjuncture is forthcoming (if it is). ...
 - (f) Secondary recessive Corrective work in the description of the explanandum conjuncture.

The model of *theoretical development* has been labelled **DREIC** where the Resolution and Redescription stages are replaced by a straightforward Description stage. R. Bhaskar, 1994, *Plato Etc.* p. 27.

⁴⁸ R. Bhaskar, 1986, *Scientific Realism* p. 60.

⁴⁹ *Ibid.*, p. 63.

⁵⁰ For a discussion of this problem in the fields of ecology and evolutionary biology – particularly, the applicability of predictive or ‘stochastic’ models – see R. Levins and R. Lewontin, 1985, *The Dialectical Biologist* Harvard University Press, Cambridge MA, pp. 152-60.

limited applications. The argument against the positivistic preoccupation with prediction also rests upon criticism of the empiricist belief that we can know no more than the constant sequences that unite phenomena.⁵¹ It should be emphasised here that this perspective does not rule out the *possibility* or even the importance of prediction, just that explanation is not identified with prediction, and that “statements about past conjunctions are not in themselves explanations”.⁵² Indeed, the idea that such statements could be considered explanations seems highly counter intuitive, William Michael argues the following in this context:

Imagine someone had correctly predicted the results of five horse races in a row, but was unable to say anything illuminating about how he did it. We wouldn't intuitively say he had an explanation for *why* the horses that won did win. Explanations aim to satisfy why questions. Predictions just don't do that. But I find why questions meaningful, and their denial I am not prepared to go along with.⁵³

It is in this context that this thesis focuses upon the *explanation* of business power and dominance in environmental conflict.

2.4. Critical Naturalism: the Social Ontology of Critical Realism

The question about which this section pivots is the naturalistic one of the susceptibility of both the social and natural worlds to synonymous modes of explanation, ie. scientifically. A particular understanding of scientific explanation has been espoused above – the transcendental realist view – in which the essential moment in science is the retroductive “*movement* at any one level from knowledge of manifest phenomena to knowledge of the structures that generate them”. On this basis the question of naturalism can be put as follows; “to what extent is it possible to suppose that a comparable move can be made in the domain of the human sciences?”⁵⁴ In pursuing this question Bhaskar does not, however, set out to establish, assert or defend, either a scientific unity of method across the social and natural sciences, nor a reductionist identification of the subject matters of both.⁵⁵ The issue is, rather, what relevance a realist theory of science has for the study of the social world. Bhaskar argues that a naturalism is possible but only in a conditional or qualified form.

Once again, the nature of the (social) world is apprehended through transcendental inquiry. Because of his preoccupation with freedom, Bhaskar's point of departure in his social philosophy is the generic *possibility of human agency*.⁵⁶ As with the above treatment of transcendental realism, discussion is limited here to a review of the main aspects of Bhaskar's naturalistic extension. In this section I deal with four central arguments within Bhaskar's social philosophy; his transformational model of social activity, the limits to naturalism, complex causality and material relations, and his broad understanding of social analysis.

⁵¹ W. Outhwaite, 1987, *New Philosophies* p. 20.

⁵² A. Collier, 1994, *Critical Realism: An Introduction to Roy Bhaskar's Philosophy* Verso, London, p. 227.

⁵³ William Michael, December 1998, Personal correspondence.

⁵⁴ R. Bhaskar, 1979, *The Possibility of Naturalism* p. 17.

⁵⁵ R. Bhaskar, “Naturalism” in: Outhwaite, W. and Bottomore, T. 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, p. 412.

⁵⁶ C. Lawson et. al., note that this “is taken as a starting point because those antagonistic to any possible application of science to the social realm have stressed this feature above all others”. 1996, “Realism, Underlabouring and Institutions” *Cambridge Journal of Economics* Vol. 20, p. 147.

2.4.(i) *The Transformational Model of Social Activity (TMSA)*

Two polarised social ontologies, have permeated social science. On the one hand there has been the tradition, epitomised by Max Weber (Figure 2.1.),⁵⁷ in which social objects are understood as the results of, or constituted by, intentional human behaviour. Such a perspective tends towards voluntarism, it is associated with social atomism and hence methodological individualism, and also underpins the action-oriented and interpretive (*Verstehen*) sociologies. On the other hand there is the Durkheimian tradition (Figure 2.2.), where social objects possess a life of their own, “external to and coercing the individual”.⁵⁸ This perspective tends to reification, is associated with collectivism and social determinism, and underpins the substantive approaches of structuralism and functionalism. Both standpoints shed light upon the nature of the social world, however, each is a flawed and at best, partial, explanation.

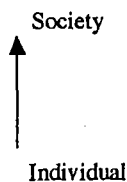


Figure 2.1. The Weberian Stereotype

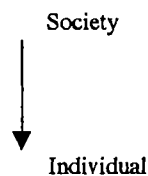


Figure 2.2. The Durkheimian Stereotype

Over the past three decades there have been a number of parallel programs seeking to resolve this perceived antinomy by means of synthesis. For example, Anthony Giddens’ ‘theory of structuration’⁵⁹ and Pierre Bourdieu’s ‘generative structuralist method’ – specifically, his model of reproduction and change.⁶⁰ The most fully worked out account, however, is Bhaskar’s *transformational model of social activity*, which is set out below, in Figure 2.3. On this formulation, society⁶¹ is conceived not only as a pre-existing and necessary

⁵⁷ But also of Hobbes, Locke, Adam Smith, J.S. Mill, Spencer and Pareto etc. See: P. Manicas, 1987, *A History and Philosophy of the Social Sciences* p. 269.

⁵⁸ R. Bhaskar, “Naturalism” in: Outhwaite, W. and Bottomore, T. 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, p. 413. This perspective also includes Comte, and the Hegelian tradition exemplified in versions of Marxist historical materialism. On such accounts people are seen as the *bearers of autonomous structures* – “One form of this, that found in Lévi-Strauss, involves an escape from history via a form of Platonism in which ‘ethnographic analysis tries to arrive at invariants beyond the empirical diversity of human societies’, and where ‘the ultimate goal of the human sciences is not to constitute [persons] but to dissolve them’”. P. Manicas, 1987, *A History and Philosophy of the Social Sciences* p. 269

⁵⁹ Cf. A. Giddens, 1984, *The Constitution of Society: Outline of the Theory of Structuration* Polity Press, Cambridge.

⁶⁰ For a useful summary see: R. Harker, C. Mahar, and C. Wilkes, (eds), 1990, *An Introduction to the Work of Pierre Bourdieu: The Practice of Theory* Macmillan, London, pp. 100-2.

⁶¹ “Society ... the ensemble of positioned practices and networked interrelationships which individuals never create but in their practical activity always presuppose, and in so doing everywhere reproduce or transform.” R. Bhaskar, 1989, *Reclaiming Reality* p. 4.

condition for, intentional agency,⁶² but also as existing and consisting only in virtue of such agency.⁶³

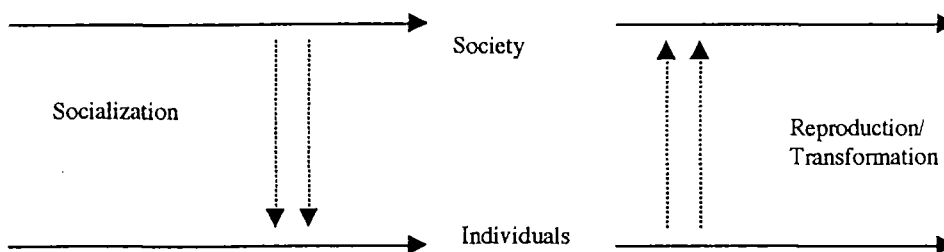


Figure 2.3. The Transformational model of the society/person connection⁶⁴

To explain: Agency (transcendentally) presupposes the existence of social structures that are both real and transfactually active.⁶⁵ Bhaskar puts this clearly:

For all activity presupposes the prior existence of social forms. Thus consider saying, making and doing as characteristic modalities of human agency. People cannot communicate except by utilising existing media, produce except by applying themselves to materials which are already formed, or act save in some or other context. Speech requires language; making materials; action conditions; agency resources; activity rules. Even spontaneity has as its necessary condition the pre-existence of a social form with (or by means of) which the spontaneous act is performed.⁶⁶

Like natural structures, social structures are causally efficacious; they both enable and constrain human activity.⁶⁷ In their absence particular outcomes will either not happen, or not happen the same way. Yet this is not to advocate a structural determinism – “rules of grammar facilitate speech but do not determine what is said”.⁶⁸ The model acknowledges the “*space of indeterminacy*” between “institutionalised expectations of any kind and any particular act”.⁶⁹ Hence it does not vitiate the notion of agency and it is only through the actions of agents that social structures persist and are transformed.⁷⁰ Society is only present in human action. This model avoids the reductionist errors of both reification and voluntarism, and enables us to sustain the twinned dualities of structure and praxis.⁷¹ In summary:

⁶² “Agency Intentional transformative praxis caused by real, even if routinised, unconscious, multiple, anterior (including long prior) and/or contradictory reasons; which issue in a state of affairs that, unless it was overdetermined (as in a firing squad), would not have occurred otherwise.” R. Bhaskar, 1993, *Dialectic* pp. 393-4.

⁶³ R. Bhaskar, “Naturalism” in: Outhwaite, W. and Bottomore, T. 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, p. 413.

⁶⁴ R. Bhaskar, 1989, *The Possibility of Naturalism* p.36.

⁶⁵ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 147.

⁶⁶ R. Bhaskar, 1989, *The Possibility of Naturalism* p.34.

⁶⁷ A. Giddens, 1984, *The Constitution of Society: Outline of the Theory of Structuration* Polity Press, Cambridge, p. 297; 1979, *Central Problems* p. 91.

⁶⁸ C. Lawson, et al., 1996, “Realism, Underlabouring and Institutions” p. 147.

⁶⁹ J. Alexander, 1995, *Fin de Siècle Social Theory: Relativism, Reduction, and the Problem of Reason* Verso, London, p. 139.

⁷⁰ “The transformative capacity of the agent depends upon competences and facilities (access to resources), while the acts performed in or by her actions will depend upon the extent and manner in which she is able to mobilise these resources (including ‘inner’ ones – curiosity, hope, imagination, drive, bodily gesture, self-esteem) and the circumstances of her action.” R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, pp. 99-100.

⁷¹ R. Bhaskar, 1989, *Reclaiming Reality* p. 184. Bhaskar describes these dualities in *Plato Etc.*: “Society is thus both the condition and outcome of human agency (the duality of structure to use Anthony Giddens’ terminology) and human agency both the production and reproduction (or transformation) of society (the duality of agency) ... “. pp. 91-2.

Society is not the unconditioned creation of human agency (voluntarism), but neither does it exist independently of it (reification). And individual action neither completely determines (individualism) nor is completely determined by (determinism) social forms. In [this formulation], unintended consequences, unacknowledged conditions and tacit skills ... limit the actor's understanding of the social world, while unacknowledged (unconscious) motivation limits one's understanding of oneself.⁷²

As will be discussed later, these various disjunctions – between the intended and unintended⁷³, the acknowledged and the unacknowledged, the explicit and the tacit, and the conscious and the unconscious – suggest an explanatory, and indeed emancipatory, role for the social sciences.

Contained within this schema is a subtle understanding of, on the one hand, the ontological hiatus which exists between society and people – they are thoroughly different kinds of thing and do not constitute two dialectical moments of the same process (as, for example, appears to be the case in Giddens' earlier circular model of structuration)⁷⁴ – and on the other hand, it situates the connection between the two in the *process* of transformation. As a consequence, the model is able to uphold a robust concept of change, and hence of history.⁷⁵

In addition to their advocacy of this *transformational* conception of social activity, critical realists also advance related argument for the *relation-dependent* character of the social world.⁷⁶ Marx articulated a similar perspective in *Grundrisse*: “Society does not consist of individuals, but expresses the sum of interrelations, the relations within which these relations stand”.⁷⁷ Such an understanding is, once again, contra to the extremes of both atomistic individualism and undifferentiated collectivism that have underpinned much of social science. It can also be perceived, mistakenly, as an extreme position – particularly, as a denial of the ontological status of the individual.⁷⁸ This is to ignore the specific focus of these realist claims, which is *society*. To study society *per se*, the object of sociology, is to be concerned “at least paradigmatically, with the persistent *relations* between individuals (and groups), and with the relations between these relations (and between such relations and nature and the products of such relations)...”.⁷⁹ Importantly, this approach does not rule out individualist methodologies *per se*, rather, it highlights their limitations and warns against their dominance.

A corollary of both the TMSA and the relational conception of society, and one which has important methodological consequences or potentialities for the study of social phenomena, is what Bhaskar has called the ‘position-practice’ system:

⁷² R. Bhaskar, 1982, “Emergence, Explanation and Emancipation” In: P. Secord, (ed.), *Explaining Human Behaviour* Sage, Beverly Hills C.A., p. 286.

⁷³ “As regards unintended consequences, Marx was one of the first social scientists who systematically treated this mechanism. He employed this kind of analysis himself when he demonstrated both on the political and economic level how individual rationality can bring about collectively undesirable outcomes” R. Grundmann, 1991, *Marxism and Ecology* Clarendon Press, Oxford, p. 71. See also J. Elster, 1985, *Making Sense of Marx* Cambridge University Press, Cambridge.

⁷⁴ R. Bhaskar, 1989, *The Possibility of Naturalism* p. 33.

⁷⁵ *Ibid.*, pp. 36-7.

⁷⁶ R. Bhaskar, 1994, *Plato Etc.* p. 93.

⁷⁷ K. Marx, 1973, *Grundrisse* Penguin, Harmondsworth, p. 265.

⁷⁸ This is clearly wrong – the significance of individual agency within the TMSA has already been underlined. William Outhwaite sums up the realist position here: “At the centre of our social ontology there must be then, the commonsense picture of physically distinct persons capable of independent action: what Harré and Secord ironically called the ‘anthropomorphic model of man’.” W. Outhwaite, 1987, *New Philosophies of Social Science* Macmillan, London, p. 108.

⁷⁹ R. Bhaskar, 1989, *The Possibility of Naturalism* p. 29.

... it is evident that we need a system of mediating concepts encompassing both aspects of the duality of praxis, designating the 'slots' as it were, in the social structure into which active subjects must slip in order to reproduce it; that is, a system of concepts designating the point of contact between human agency and social structures. Such a point, linking action to structure, must *both* endure and be immediately occupied by individuals. It is clear that the mediating system that we need is that of *positions* (places, functions, rules, tasks, duties, rights, etc.) occupied (filled, assumed, enacted, etc.) by individuals, and of the *practices* (activities, etc.) in which, in virtue of their occupancy of these positions (and vice versa), they engage. ... Now such positions and practices, if they are to be individuated at all, can only be done so *relationally*.⁸⁰

This system thus avoids the pervasive reductionist errors identified earlier, allowing for a non-trivial treatment of agency whilst avoiding the reduction of social structure to "the inadequate notion of context".⁸¹ Many aspects of the analytical framework developed in Chapter Two can be understood as position-practice nodes and articulations.

2.4.(ii) *Limits to Naturalism*

The social world has been described here as a complex *real* object. But although real, society possesses crucial divergent ontological characteristics, which establish limits upon naturalism. Of these, relation-dependence has already been discussed – substantive social explanation must always have regard to some or other social relation. There are three other important conditions; activity-dependence, concept-dependence and greater space-time specificity.

In *Dialectic* Bhaskar notes that the latter three limits can be derived from the premise of intentional embodied human agency.⁸² So consider once more Bhaskar's definition: "Intentional, transformative praxis caused by real, even if routinized, unconscious, multiple, anterior (including long prior) and/or contradicting reasons."⁸³

The first condition is the activity-dependent, or the auto-poietic character⁸⁴ of social structures; "Social structures, unlike natural structures, do not exist independently of the activities they govern".⁸⁵ This is in the main straightforward, however William Outhwaite and Ted Benton propose two further qualifications or additions: That it be counterfactualised to include *possible* actions governed (enabled or constrained) by a structure. This crucial observation embraces such political phenomena as agenda-control, non-decision making and some types of structural dominance; And that the issue of non-correspondence be taken into account – the activities which sustain a structure are not always the same as those which it governs in its functioning – "[a] structure of gift exchange does not exist independently of the giving of gifts, but it also presupposes the possession or acquisition of potential gifts (whether or not these are possessed or acquired under that description)".⁸⁶

The second condition, that of concept-dependence is supervenient to, if not inseparable from, activity-dependence; "social structures, unlike natural structures, do not exist independently of the agent's conceptions of what they are doing in their activity"⁸⁷ (a

⁸⁰ Ibid., pp. 40-1. See also; *Reclaiming Reality* p. 184.

⁸¹ C. Lawson, et al., 1996, "Realism, Underlabouring and Institutions" p. 148.

⁸² R. Bhaskar, 1993, *Dialectic* p. 157.

⁸³ Ibid., pp. 393-4.

⁸⁴ "The activity-dependence of social structures entails its auto-poietic character, viz. that it is itself a social product, that is to say, that in our substantive motivated productions, we not only produce, but we also reproduce or transform the very conditions of our production". R. Bhaskar, 1993, *Dialectic* pp. 156-7.

⁸⁵ R. Bhaskar, 1989, *The Possibility of Naturalism* p. 38.

⁸⁶ W. Outhwaite, 1987, *New Philosophies of Social Science* pp. 53-4; T. Benton, 1981, "Realism and Social Science" *Radical Philosophy* No. 27.

⁸⁷ R. Bhaskar, 1989, *The Possibility of Naturalism* p. 38.

phenomenon such as sleepwalking can only be considered a marginal case of action). It is very important to emphasise that the agent's conception of what they are doing in their activity need not be correct; indeed, in certain instances a correct understanding of one's actions may render such action unlikely or impossible (for example, I cannot be deliberately misled if I am in full knowledge of the deceit).⁸⁸ On a wider scale, the above definition allows for our both conscious and unconscious involvement (reproduction and transformation) within manifold structures (the nuclear family, capitalist economy, language, etc.). It can therefore account for such phenomena as ideology and false consciousness. Also of crucial importance here, is that this definition of agency talks of "...praxis caused by real ... reasons". Bhaskar has noted elsewhere that "reasons (that are acted on) just are causes".⁸⁹ Ideas play a causal role in any social transformation.

The third constraint is that of geo-historical specificity or space-time dependence. On the TMSA social structures are possible objects of transformation and will therefore be only relatively enduring. Unlike the other constraints this is a relative rather than absolute difference (for as noted earlier the natural world is itself transforming). It is a warning that the social world is on the whole *more* historically determinate. Partly as a result of this, but also due to the differentiation and development of social activities, and hence their interdependence, social structures must be perceived not only as relatively transient but also as localised.⁹⁰

In addition to these directly ontological constraints there are three other limits to a naturalistic treatment of the social world: First, there is the *epistemic* problem arising from the intrinsic openness and causal complexity (implied by the very notion of human *agency*) of social systems. It has already been noted in discussion that contra to the Humean ontology the natural world should be understood as complex and open, and that causal mechanisms will not as a matter of course reveal themselves through constant conjunctions. This was not to deny the possibility, and fundamental epistemological efficacy, of artificial isolation and closure for scientific inquiry. It was, rather, a cautionary note. However the social world is even more contingent and is characterised by a "complete absence of universal generalisations of any cognitive import".⁹¹ Secondly, there is a *relational* limit (distinct from relation-dependence) inferred by the causal interdependence between social science and its subject matter:

This is not to say that the social theorist 'constructs' social reality. But it is to say that social theory is practically conditioned by, and potentially has practical consequences in society.

⁸⁸ W. Outhwaite, 1987, *New Philosophies of Social Science* Macmillan, London, pp. 54.

⁸⁹ It is interesting to consider this statement in its context:

To comprehend human agency as a causally and taxonomically irreducible mode of matter is not to posit a distinct substance 'mind' endowed with reasons for acting apart from the causal network, but to credit intentional embodied agency with distinct (emergent) causal powers from the biological matter out of which agents were formed, on which they are capable of reacting back (and must, precisely as materially embodied causally efficacious agents, do so, if they are to act at all), but from which, in an open-systemic totality in which events are not determined before they are caused, neither such beings nor the transformations and havoc they would wreak on the rest of nature could have been predicted *ex ante*. On such a synchronic emergent causal powers materialism, reasons (that are acted on) just are causes.

It is the notion of *emergence* which enables reasons to be considered in causal terms (emergence is understood here as, typically, the generation of new beings (entities, structures, totalities, concepts) out of pre-existing material from which they could have been neither deduced or induced – in a sense a quantum leap). R. Bhaskar, 1993, *Dialectic* pp. 49-51; Outhwaite has also stated that: "... 'the real reason' for an action is best understood as the reason which was causally efficacious in producing that action." *New Philosophies* p. 50.

⁹⁰ R. Bhaskar, 1989, *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Human Sciences* (second edition) Harvester Wheatsheaf, London, p. 38.

⁹¹ R. Bhaskar, 1994, *Plato Etc.* pp. 93-4.

Indeed critical realism suggests that social theory is non-neutral in two ways. It always consists in a practical intervention in social life and sometimes (other things being equal) it logically entails values and actions. In these circumstances, the standard fact/value and theory/practice distinctions break down.⁹²

Another way of considering this is to picture the causal efficacy of ideas throughout the various pathways of the TMSA (ie. socialisation and reproduction/transformation). Again there is avoidance of positivistic and constructivist extremes and instead social science takes on “the character of a relational dialectic between subject and object of inquiry”.⁹³ Yet this does not break down the distinction between the transitive and the intransitive dimensions (as in hermeneutic theories). Existential intransitivity is an “a priori condition of investigation and applies in the same way in the social, as the natural sphere”.⁹⁴ Both causal interdependence and existential intransitivity are necessary for a realist social science;⁹⁵ Finally, in the earlier description of the TMSA it was observed that society consists not only of social objects but also beliefs about such objects. This differentiation has radical implications for social science as it “makes possible an explanatory critique of consciousness (and being), entailing judgements of value and action, without parallel in the domain of the natural sciences ...”.⁹⁶ For critical realists all *social forms will be liable to critique*.

2.4.(iii) *Complex Causality and Material Relations: The Social Cube*

In discussion thus far a conceptual distinction has been made between the natural and the social worlds. But it is of course the case that human beings transact with nature (“social structure is embedded in, conditioned by and in turn efficacious on the rest of nature, the ecosphere”⁹⁷) and hence a comprehensive ontology should reflect this. While the above social ontology provides for the spatio-temporality of social life, it does not capture the full implications of this relation. It is therefore essential that this schema be extended in order to embrace “both material culture and human beings as active forces in the creation of social life, although each has its own special forms of cause”.⁹⁸ Bhaskar has done this through a model variously labelled the ‘four-planar model of social being’, ‘human-nature simpliciter’ or simply the ‘social cube’.

⁹² R. Bhaskar, 1989, *Reclaiming Reality* p. 5.

⁹³ R. Bhaskar, 1994, *Plato Etc.* p. 94.

⁹⁴ R. Bhaskar, 1989, *The Possibility of Naturalism* p. 60.

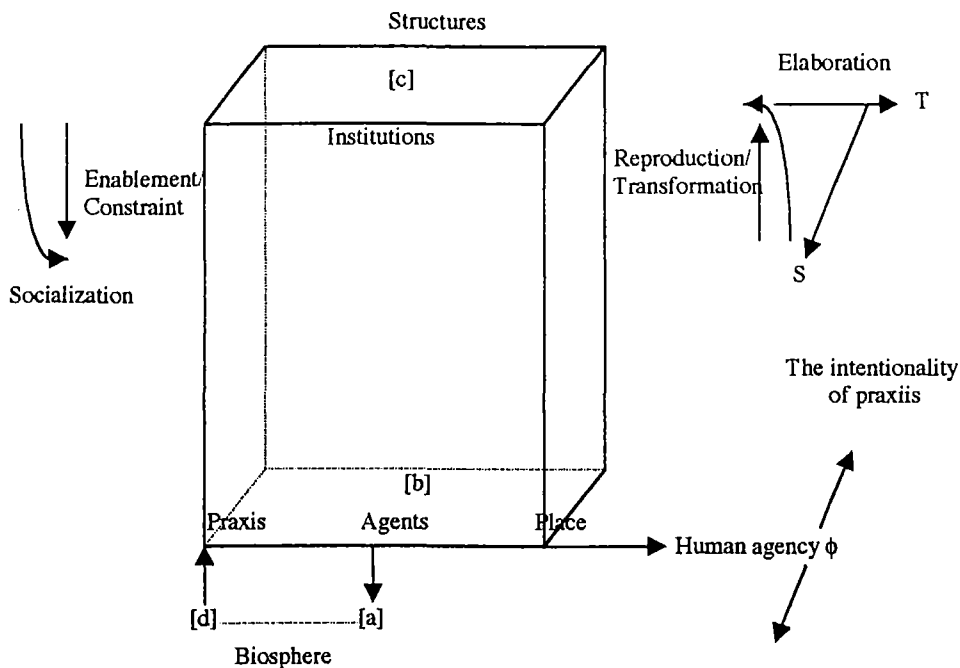
⁹⁵ W. Outhwaite, 1987, *New Philosophies of Social Science* pp. 54.

⁹⁶ Which vindicates a kind of ‘substantive ethical naturalism’. That is a form of naturalism which recognises the cognate nature of statements of fact and value. R. Bhaskar, “Naturalism” in: Outhwaite, W. and Bottomore, T. 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, pp. 412-4.

⁹⁷ R. Bhaskar, 1989, *Reclaiming Reality* pp. 6-7.

⁹⁸ C. Gosden, 1994, *Social Being and Time* p. 72. Gosden in a discussion about Hegel and Marx’ treatment of the subject/object relation writes:

[In Marx] the full implications of the dialectic between people and nature was never followed through. In Marx, as in Hegel, there is a unity between the dialectical form of analysis and the dialectical movements of the social world. In both schemes there is an attempt to break down the divide between subject and object. While people may be considered separate from external reality for certain purposes of thought, ultimately they are locked together in a structure of mutual causation.

Figure 2.4. Four-Planar Social Being Encompassing the Social Cube⁹⁹

In this schema the four inter-dependent planes that constitute social life are:

- [a] The plane of material transactions with nature;
- [b] The plane of inter-/intra-subjective (personal) actions;
- [c] The plane of social relations;
- [d] The plane of the subjectivity of the agent.

Where planes [b] and [c] constitute the social cube.¹⁰⁰ It is not possible or appropriate at this point to conduct an extended excursus into the implications of this model. It is placed here simply as a graphic representation of the interconnection between people and nature. In the context of this thesis, there is one point that must be made – that the social world; is both inscribed within and in constant dynamic causal interaction with (the rest of) nature. To fail to see this, and in particular that there are aphysical (natural) constraints on human social life ... is a charter for ecological disaster ...¹⁰¹

Finally, it is intended that the model will later function as a heuristic in the development of the theoretical framework in Chapter Two.

2.4.(iv) Social Analysis: Depth Explanation and Emancipatory Critique

I will start here by returning to the issue of naturalism, and ask; What relevance does a realist theory of science have for the study of the social world? There are two elements here; is such an extension possible, and, further, is it appropriate? Underpinning all of this is the historical record of science in furnishing us with often sensational insights into the operation of the *natural* world.

The transcendental realist account of scientific discovery in the natural world was predicated upon the exposition of a specific ontology which was characterised by; (a) a split between the intransitive and the transitive domains, and (b) the depiction of the intransitive realm as structured, differentiated and changing, necessitating a complex comprehension of

⁹⁹ R. Bhaskar, 1994, *Plato Etc* pp. 96-7.

¹⁰⁰ Ibid.

¹⁰¹ R. Bhaskar, 1991, *Philosophy and the Idea of Freedom* p. 73.

real causal relations. Scientific investigation of this world was seen to consist in a typically four-phase procedure of identification/description, retrodution, empirical scrutiny and resultant redescription (the DREIC and RRREI(C) models of theoretical and applied analysis being specific variants of this fundamental progression). Moreover, while the essence of scientific development lies in the retroductive movement of systematic depth explanation, this is not in any way to subscribe to monism, rather, science must be seen as fallible and inherently contingent, involving the ongoing redescription of phenomena at any one level.

On the critical naturalist extension the social world, while constituted of very different things, also possesses these core characteristics. Even though the object of social science is itself conceptualised, and there exists a relational dialectic between the subject and object of inquiry, the transitive/intransitive split still holds. Further, society is a complex real object:

We can be sure that society exists and confident that it has certain general features (such as emergence, praxis-dependence, conceptuality, structural plurality, nomic transfactuality, spatio-temporality, totality¹⁰²). Its existence (and some of these features, such as the stability of word meaning across uses, combined with simile and metaphor) is a necessary condition for any knowledge including knowledge in the natural sciences or everyday life.¹⁰³

Like the natural world, society is stratified, differentiated and changing, and the causal account of being contained within transcendental realism (the structure of a thing constituted by its causal powers) applies to the social world as it does to the natural (although the nature of specific causes differ, ie. reasons may be causes in the social world). Hence the critical naturalist position is that the DREIC and RREIC models are *prima facie* applicable to social science – the systematic depth investigation of social phenomena is presumed to be possible. On this basis the task of social science is “to describe what social processes (for example, the buying and selling of labour power, the extraction of surplus value) must be going on for a Stock Exchange crash or some other manifest phenomena to be possible”.¹⁰⁴

However, the limits to naturalism detailed above do imbue social science with certain divergent characteristics. Some of these have already been touched upon, and it is my intention here not to systematically deal with the implications of those constraints, but instead, to highlight some key characteristics of a realist strategy in social science, and to provide some brief examples.

First, it was mentioned earlier that the concept-dependent character of human activity implies the necessity for a hermeneutical moment in social inquiry. In fact this understates the case for, and role of, hermeneutics in such activity. Outhwaite distinguishes between two historical strands of hermeneutics; The first, termed the ‘general’ or ‘universal’ thesis, stresses the “hermeneutic starting point which precedes and underlies any scientific inquiry”.¹⁰⁵ It appears that this aspect relates to the transitive realm of both natural and social inquiry, it reflects the inherently conceptual, motivated and geo-historical nature of any science, and subsequently necessitates reflexive moments (incorporating the contemplation of those very

¹⁰² **Totality:** “Totalities are systems of internal relations (q.v.), which may assume various forms of intra-activity (q.v.) and operate via holistic causality. ... most totalities of concern to science, at least macroscopically, are partial as well, displaying external in addition to internal and contingent besides necessary connections.” R. Bhaskar, 1993, *Dialectic* p. 405.

¹⁰³ R. Bhaskar, 1989, *Reclaiming Reality* p. 186.

¹⁰⁴ *Ibid.*, p. 4.

¹⁰⁵ W. Outhwaite, 1987, *New Philosophies* p. 62.

motivations, contexts etc.) within the process of discovery.¹⁰⁶ It is unlikely that any realist would challenge this thesis. The second, 'special', thesis, "argues (instead or as well) for a specific hermeneutic dimension in some of the sciences, implying for example a commitment to a *Verstehende* sociology".¹⁰⁷ Now while realists would point to the basic flaws of such a sociology (viz. the ontological deficiencies of the 'Weberian Stereotype' illustrated in Figure 2.1.¹⁰⁸) they would acknowledge (principally on the basis of the concept-dependence and causal-interdependence arguments¹⁰⁹) the necessity for some hermeneutical understanding/analysis of the intransitive realm in the social sciences. For example, Andrew Collier (a critical realist political scientist/philosopher who is also a socialist) notes:

Even though ideas may be causally secondary to economics (at least in the dimension of 'vertical explanation'), and history may be the history of class struggles, as Marx claimed, there can nevertheless be no understanding of the English Civil War and Commonwealth without understanding Puritanism, or of Modern Iran without understanding Shi'ite Islam, So an account of the ideas prevailing in a society will be an essential part of a social scientific account of that society.¹¹⁰

While Collier does not put this in 'hermeneutical terms', and is clearly disposed towards a Marxian account of history, he is acknowledging the need for social scientists to take into account meanings – although in this instance these are not individuated. However in the realist program of "elucidating the enduring structures and generative mechanisms underlying and producing observable phenomena and events"¹¹¹ hermeneutical insights will tend to be most fruitful in the early stages of the research program (the Descriptive stage):

... common-sense descriptions of social phenomena can and must be taken as a starting-point in social scientific theorising. *Can*, because they provide the beginnings of definitions of the phenomena and thus help in the otherwise bewildering activity of object-constitution ... given the mish-mash nature of social reality. *Must*, because however imperfect they may be, to the extent that they are the perceptions of the agents involved in that situation they will influence the very nature of that situation.¹¹²

Beyond this stage an interesting paradox arises, in that hermeneutics offers social scientists a valuable investigative tool at the margin, indeed beyond the margin, of its powers. That is, where hermeneutics (as the interpretation of actors' accounts) becomes unable to deal with such phenomena as unintended consequences, unacknowledged conditions, tacit skills, and the efficacy of wider structural mechanisms, it can become a *de facto* tool of structural

¹⁰⁶ Christopher Gosden discusses the rationale for this thesis; "... there is no objective point from which to view the world: we cannot step outside the antagonisms and attractions that the world and people in it hold for us. There is no dispassionate point of view; no point of non-involvement." C. Gosden, 1994, *Social Being and Time* pp. 72-3; For discussion on the process and value of 'reflective distancing' see R. Bhaskar, 1986, *Scientific Realism* p. 284.

¹⁰⁷ W. Outhwaite, 1987, *New Philosophies* p. 62.

¹⁰⁸ Specifically, hermeneutics failure to sustain the "intransitivity of both beliefs and meanings", and hence "their susceptibility to scientific explanation". R. Bhaskar, 1989, *The Possibility of Naturalism* pp. 21-2.

¹⁰⁹ Anthony Giddens puts this very well when he talks of the double-hermeneutic of social analysis:

But sociology, unlike natural science, deals with a pre-interpreted world, where the creation and reproduction of meaning-frames is a very condition of that which it seeks to analyse, namely human social conduct: this is why there is a double hermeneutic in the social sciences ... the observing social scientist has to be able to first grasp those lay concepts, i.e. penetrate hermeneutically the form of life whose features he wishes to analyse or explain.

A. Giddens, 1976, *New Rules of Sociological Method* Hutchinson, London, pp. 158-9.

¹¹⁰ A. Collier, 1994, *Critical Realism* p. 171.

¹¹¹ R. Gunn, 1989, "Marxism and Philosophy: A Critique of Critical Realism" *Capital and Class* No. 37, Spring, p. 88.

¹¹² W. Outhwaite, 1987, *New Philosophies* p. 56.

analysis, enabling the provision of crucial dialectical explanations.¹¹³ Once again Collier illustrates this:

Now many of the most significant ideas in any society will be ideas about features of that society. For instance, in Britain in the 1980s, a large number of people believed that unemployment was the result of the fecklessness of the unemployed. Any account of social attitudes, political behaviour, etc. in that period would also need to mention the real causes of unemployment in the structure of British financial institutions, the world market, government policy, etc. Hence the explanations that were part of the social-scientific study, and the explanations which were part of the society studied would contradict.¹¹⁴

The apparent disjunction between the perceived and real outcomes of conflict, contained within the first of the following case studies, is an example of such a dialectical explanation.¹¹⁵

Hermeneutical analysis must therefore play a part in the reflexive contemplation of the transitive realm of both natural and social science, and must play some meaningful part in the investigation of the intransitive within the domain of the social sciences.

Secondly, it has already been noted that the intrinsic openness and causal complexity of social systems – their ‘mish-mash’ nature – pose significant epistemic limits to naturalism. One crucial effect is that the multiple determination of events in a vertically structured and horizontally differentiated world implies the need for their explanation in terms of a plurality of mechanisms belonging to different scientific strata.¹¹⁶ Bhaskar provides an indication of how such explanation works in his discussion of the base-superstructure question (note that a definition of *emergence* is located in an earlier footnote):

In [this complex, stratified world etc.] ... emergence situates the widespread phenomenon of dual, multiple, complex and open control. Thus typically, in our zone of being, higher order agencies set the boundary conditions for the operation of lower order laws. Thus in contemporary capitalist society it is economic considerations which explain when, where and how the physical principles engaged in engineering are put to use (or held in abeyance).¹¹⁷

Among other things, this example illustrates how the realist ontology can accommodate some types of (qualified) vertical determination whilst avoiding the pitfalls of explanatory reductionism. Such an approach is necessarily ecumenical, requiring a plurality of methodological approaches.¹¹⁸

But the most profound implication of the ‘messiness and fluidity’ of the social world (exacerbated by the intrinsic complexity of its meaning-laden character) is that social science is

¹¹³ “A dialectical explanation typically explains some tendency or outcome in terms of a dialectically contradictory ground or condition of possibility or some complex, combination or totality of them”. R. Bhaskar, 1994, *Plato Etc.* pp. 93-4. Richard Gunn observes that in Marxist terms this model conveys “a particular understanding of the relation between ‘appearances’ (which may be misleading, mystifying and so forth) and social ‘essence’ or ‘reality’ ...”. R. Gunn, 1989, “Marxism and Philosophy: A Critique of Critical Realism” *Capital and Class* No.37, Spring, p. 88.

¹¹⁴ A. Collier, 1994, *Critical Realism* pp. 171-2.

¹¹⁵ In a move resonant (but only partially so) of the transcendental philosophical method we are able to ask what a particular society must be like in order for people to act within it, and conceive it, in the ways they do. This is the case in the following study of the Black Head conflict where theory of the state is used to explain how the general public there was a general perception that business had made a significant accommodation to conservation interests, when in fact the Company had in all likelihood profited from the agreement. In a sense, therefore, concept-dependence makes possible certain kinds of dialectical explanation. W. Outhwaite, 1987, *New Philosophies* p. 56.

¹¹⁶ A. Collier, 1994, *Critical Realism: An Introduction to Roy Bhaskar’s Philosophy* Verso, London, p. 213, also; J. Lovering, 1990, “Neither Fundamentalism nor ‘New Realism’: A Critical Realist Perspective on Current Divisions in Socialist Theory” *Capital and Class* No. 42, Winter, pp. 41-2.

¹¹⁷ R. Bhaskar, 1993, *Dialectic* p. 53. This is precisely the relationship which is envisaged in the following case studies between the explanations of my model (founded in political economy) and other contributing causal factors (for example, the implications of juridical decision-making for the integration of a multiplicity of value types and rationalities).

¹¹⁸ W. Outhwaite, 1987, *New Philosophies* p. 116.

inherently tentative. The penetrating power of social science is limited by all those qualifications listed above, and hence it cannot deliver “in the study of human social life, the same sort of sensational illumination and explanatory power yielded up by the sciences of nature”.¹¹⁹ While this is indeed a rejection of the utopian aspirations of positivistic social science it is not to say that that social science is without surprises; “but the important ones are arguably not the findings which go against our expectations, but the qualitative discovery of new ways of conceiving social reality – ways which are however still in some sense continuous with common-sense perceptions”.¹²⁰

But does this complexity mean that social science dissolves into undifferentiated eclecticism, relativism or possibly irrationalism? Can we judge between competing explanations, and if so on what basis? With regard to the first question Bhaskar makes a distinction between two distinct theses (which he says are confused by both supporters and detractors of relativism):

The first is the correct thesis of *epistemic relativism*, which asserts that all beliefs are socially produced, so that all knowledge is transient, and neither truth-values nor criteria of rationality exist out of historical time. The other is the incorrect thesis of *judgemental relativism*, which asserts that all beliefs (statements) are equally valid, in the sense that there can be no (rational) grounds for preferring one to another. Denying the principle of epistemic relativism inevitably entails embracing some type of epistemological *absolutism* (which, by a short route, invariably results in some kind of idealism), while acceptance of judgemental relativism inevitably leads to some or other form of *irrationalism*.¹²¹ Epistemic relativism is entailed both by ontological realism and by the transformational conception of social activity: it respects a distinction between the sense and reference of propositions, while insisting that all speech acts are made in historical time.¹²²

The rejection of judgemental relativism, and thus irrationalism, leads me to the second question. The critical naturalist position here is that because of the complexity of the social world, and the associated unavailability of decisive test situations (due to the practical impossibility of experimental closure), prediction cannot be *the* preeminent criteria for the evaluation of theories (NB previous discussion of the limitations upon prediction even within the natural sciences).¹²³ Instead, the comparison between research programs and between rival theories must be on the basis of their *comparative explanatory power*. Conceptual schema being “neither a priori demonstrable nor empirically refutable ... can only be assessed indirectly – in terms of their developmental potential, empirical fertility, heuristic plausibility, synoptic power etc.”¹²⁴ Similarly, Outhwaite offers general criteria in parallel with the realist model of discovery:

We shall feel we ... have a good explanation if
1. The postulated mechanism is capable of explaining the phenomena;

¹¹⁹ A. Giddens, 1976, *New Rules of Sociological Method* Hutchinson, London, p. 16.

¹²⁰ W. Outhwaite, 1987, *New Philosophies* pp. 55-6.

¹²¹ As Manicas notes elsewhere this position “is not an irrationalism because it presupposes a realism”. P. Manicas, 1987, *A History and Philosophy of Social Sciences* Basil Blackwell, Oxford, p. 261.

¹²² R. Bhaskar, 1989, *The Possibility of Naturalism* p. 57.

¹²³ This is not to rule out the possibility of prediction per se in the natural sciences (indeed prediction is often a decisive part of empirical investigation) but rather due to the acceptance of nomic transfactuality etc. realists place the emphasis upon explanation. Nor does this rule out conditional predictions in the social sciences: “... a powerful explanatory theory will be capable of situating probabilities long before the y are manifested; so that theory retains a prognostic function in the social domain.” R. Bhaskar, 1989, *Reclaiming Reality* p. 186. Many social scientists have responded to the impossibility of closure by applying a battery of statistical techniques as a surrogate. However, “this neglects the qualitative limits on measurement and the use of statistical methods in the human sciences, as well as the probability that the social world is stochastically open”. *Ibid.*, p. 185.

¹²⁴ R. Bhaskar, 1986, *Scientific Realism* pp. 21-2.

2. We have good reason to believe in its existence;
3. We cannot think of any equally good alternatives.¹²⁵

Such an indeterminate, 'epistemologically cautious', approach has been vigorously criticised by social scientists committed to more definitive standpoints such as Popperian critical rationalism with its holy doctrine of falsification.¹²⁶ The realist response has been simply to acknowledge that it would be desirable to have strict meta-critical criteria but, "unfortunately we do not", and instead have to content ourselves with the general principles detailed above, and in any specific area with "standards of inquiry ... generated in the course of that inquiry" – again, *contextual* explanatory power.¹²⁷

Mats Ekström summarises the generative view of causal explanation as thus:
 ... causal explanations are not directed towards the production of empirical correlations between variables or towards the making of predictions on the basis of empirical laws, but towards the uncovering of causal properties and the processes whereby social actions arise out of the complex interaction of internally related mental dispositions, intentions, social contexts and structures.¹²⁸

Finally, much of Bhaskar's philosophy can be understood as a move to transcend or dissolve the historical breach between social theory and moral philosophy. It is his contention that "social theory just is moral philosophy, but as science".¹²⁹ Towards this end he argues along three lines: Firstly, by asserting that social science is not only potentially emancipatory but in some cases inevitably so; Secondly, by holding the traditional antinomies between fact and value, and theory and practice, to be false (eg. between positivism and moralism, science and critique); And thirdly, by stating that contra to 'Hume's Law' the movement from 'is' to 'ought' is not only possible but logically mandatory.¹³⁰ All three arguments are interconnected, relatively homologous and mutually reinforcing, but it is the first that is most relevant here.

On the first page of this chapter *emancipation* was held to be "the transition from an unwanted, unnecessary and oppressive situation to a wanted and/or needed and empowering or more flourishing situation".¹³¹ The argument that social science has a potential, and sometimes inevitable, role to play in any such transitions rests on a number of foundations.

¹²⁵ W. Outhwaite, 1987, *New Philosophies* pp. 58.

¹²⁶ For example P. Baert: "The realist notion of explanatory power seems to leave the door wide open for some non-falsifiable (or hardly refutable) theories to enter the realm of science – a highly undesirable move indeed". 1996, "Realist Philosophy of the Social Science and Economics: A Critique" p. 518.

¹²⁷ P. Manicas, 1987, *A History and Philosophy of Social Sciences* p. 261.

¹²⁸ M. Ekström, 1992, "Causal Explanation of Social Action: The Contribution of Max Weber and of Critical Realism to a Generative View of Social Science" *Acta Sociologica* No.35, p.107.

¹²⁹ R. Bhaskar, 1991, *Philosophy and the Idea of Freedom* Basil Blackwell, Oxford, p. 145.

¹³⁰ Caroline New makes a similar point:

A critical sociology, in common with all political analysis, needs not only to be realist in the sense of recognising that the world has an intrinsic nature, but also to be realist in the sense of recognising that knowledge of the natural and social world is relevant to the assessment of moral claims, and *necessarily gives rise to them* [my emphasis].

C. New, 1995, "Sociology and the Case for Realism" p. 815. This belief is integral to the notion of stylised facts (see footnote on facts in 2.1.(i)).

¹³¹ R. Bhaskar, 1994, *Plato Etc.* p. 253. A fuller description is provided in p. 178 of *Reclaiming Reality* where the concept of emancipation is thought to involve:

- (1) a stronger sense of being 'free', namely as knowing, possessing the power and the disposition to act towards one's real interests ... ; and
- (2) a stronger sense of 'liberation', namely as consisting in the transformation of unneeded, unwanted, and oppressive to needed, wanted and empowering sources of determination.

Emancipation, that is to say, depends upon the transformation of structures rather than just the amelioration of states of affairs. And it will, at least in the case of self emancipation, depend in

One particular route is via consideration of the TMSA itself. The transformational model clearly asserts a causal role for agents – people can change society. Furthermore, such agency is necessarily conceptualised and hence ideas play a causal role in any social transformation (cognition→conation→action). Consequently, the expectation here is that in so far as social science can furnish agents with some understanding of the structures in which they are enmeshed it can motivate, enable and/or enhance their transformative capacities (although there will be exceptions where greater understanding may indeed hinder agents' efforts). Thus as Paul Dalziel (an economist) notes "successful explanation of underlying structure is an essential prerequisite for effective policy making".¹³² However, this particular argument is, in an immediate sense, morally neutral. It just as easily explains the use of social science for antithetical purposes – to create or maintain conditions of un-freedom, hide real interests, etc.

But, more forcefully, Bhaskar conceives of an often-necessary relation between social science and emancipation – the *immanent critique* argument. This is well illustrated by continuing with Collier's discussion of the real causes of unemployment, and the provision of dialectical explanation:

... the explanations that were part of the social-scientific study, and the explanations of the society studied would contradict. If the social science had got it right, then the people it described who had the opposite explanation must have got it wrong. Hence social science criticises (part of) its object. There can be no equivalent of this in the natural sciences. Black holes may be unpleasant things to contemplate, but that is no criticism of them. They exist – or don't – and there's an end to it.¹³³

He then goes on to detail how such criticism implicates the social scientist within the emancipatory spiral:

... the social scientist will not be content with noticing the existence of a false belief in the fecklessness of the unemployed; he or she will want to explain it. And whether the explanation is something subtle and socially pervasive, like the atomistic nature of social relations in a commercial society, or something crude or contingent like the lying press-lords, the criticism of the belief will rub off onto its cause. To say that some institution causes false beliefs is to criticise it. Given that (other things being equal) it is better to believe what is true than what is false, it is also better (other things being equal) that institutions that cause false beliefs should be replaced by, or transformed into, those that cause true one's. Further still, particular institutions and false beliefs about them may be in a functional relation, such that the false beliefs serve to preserve the institutions that they are about. Where institutions oppress a substantial number of people, they will only be stable if protected by such false beliefs. In such cases, to propound the truth is not just to criticise, but to undermine the institution.¹³⁴

Now this example may be considered extreme, for as Manicas rightly points out "it is a simplification to hold that only 'false consciousness' stands in the way of progressive social change, for ... people are not the dupes of society".¹³⁵ It is nonetheless a legitimate illustration of how social science is at times non-neutral both in terms of its practical intervention in the social world (causal interdependence) and in so far as such endeavours logically entail values and actions.¹³⁶ The upshot of this is that social science generates "practical emancipatory projects by showing there to be (a) a need, (b) some obstacle preventing its satisfaction, and (c)

particular upon a conscious transformation in the transformative activity or practice of the social agents concerned.

¹³² P. Dalziel, 1994, "Critical Realism and the Methodology of Economics" A paper presented to the Social Science Group seminar, Lincoln University, Canterbury, p. 5.

¹³³ A. Collier, 1994, *Critical Realism* pp. 171-2.

¹³⁴ Ibid.

¹³⁵ P. Manicas, 1987, *A History and Philosophy of Social Sciences* p. 277.

¹³⁶ R. Bhaskar, 1991, *Philosophy and the Idea of Freedom* p. 146.

some means of removing this obstacle. ... it may ground *assertoric imperatives*, ie. *since you need this, remove that obstacle thus*".¹³⁷

Lastly, to qualify a point made by Collier above; "that social science criticises part of its object" and that "[t]here can be no equivalent of this in the natural sciences". It should be noted that this does not in any way mean that human *relations* with the natural world are exempt from such immanent critiques. Indeed it is such a direct emancipatory critique which lies at the heart of this thesis.

2.5. A Pluralistic,¹³⁸ Critical, and Emancipatory Resource Management

The implications of critical realism for resource management (and hence for this thesis) are manifold and operate at a variety of levels. Such ramifications permeate much of this thesis – throughout both the relatively theoretical and the relatively empirical stages, and I do not intend to catalogue these impacts here. Instead it is useful, first, to return to the description of resource management asserted at the beginning of this chapter, and secondly, to articulate the central question of business dominance within environmental conflict in realist terms. It is appropriate, however, to precede this discussion by reiterating the caveat made earlier about the connection between first-order and second-order theorising; namely, the warning that philosophy cannot legislate in advance for the use of particular scientific procedures or, for that matter, predict the substantive findings of science. This point is a subtle one for adherence to the above ontology, description of the generic scientific process, and attendant epistemic limits, will inevitably rule out the use of certain theories and methods. This movement is, however, one of reflection back upon the critical realist principles – a 'check list' or clarificatory/critical schema. It will also have its limitations, hence divergent approaches to the study of a singular phenomenon (say, for example, Marxist and neo-Keynsian analyses of the business cycle) may each be seen in critical realist terms as efforts to investigate the workings of particular causal mechanisms, and each may progress along the lines of the RRREIC model (or some approximate). In such circumstances critical realism cannot preemptively mandate one approach over the other, nor can it arbitrate between them other than to hold up the notion of contextual explanatory power.

Each of the four general characteristics of resource management set out earlier clearly conforms to some element of the critical realist framework. To say that resource management is concerned with the relationships between people, and/or between people and nature, and the products of such relations – particularly upon the human-environment nexus – articulates the concerns of resource management in terms of the relational models of the TMSA and more comprehensively (given the human-environment relation) the Social Cube. This feature should be further extended to emphasise that these are *real* relations. Caroline New has asserted that to "the extent that sociology eschews realism, it will be unable to contribute to argument about ecological threat and effective action to overcome it".¹³⁹ This point is just as applicable to resource management. Secondly, the notion that it is a non-disciplinary discipline – at once

¹³⁷ A. Collier, 1994, *Critical Realism* p. 183.

¹³⁸ I use this term here in a generic sense and not in its political sense where it refers to a particular normative standpoint.

¹³⁹ C. New, 1995, "Sociology and the Case for Realism" p. 810.

multi-disciplinary, inter-disciplinary and trans-disciplinary. Here it is useful to note the characterisation of the intransitive dimension as a “multi-determined, multi-levelled, multi-relational, multi-angular, multi-perspectival, multi-determined and open pluriverse”.¹⁴⁰ This ontological formulation itself suggests the need to transcend boundaries and make connections whilst at the same time recognising the sui generis character of the differentiae (particular mechanisms, events, phenomena). Furthermore, the characterisation of knowledge production in the transitive as historically and culturally situated, and as in flux (although in a non monistic fashion), serves to substantiate this necessarily pluralistic and strongly holistic description. Indeed, as Andrew Collier has suggested:

... one of the most common and helpful of the interventions of critical realism in the everyday work of the human sciences is precisely this insistence that the republic of knowledge has a federal constitution. It is particularly valuable in concrete, practical and interdisciplinary studies – in areas such as human geography, sociobiology, ecology and feminist studies.¹⁴¹

Which leads into the third feature – that resource management necessarily involves an applied element. I observed that critical realism breaks down the traditional antinomy between theory and practice. The causal-interdependence argument, and the intrinsic value and action components of social science, bolster this thesis. But these are held to be generic features. In this respect critical realism can explain how resource management can be praxis oriented, but cannot determine that it be uniquely or especially so. And fourthly, the positive intervention element can be couched in realist terms as an emancipatory role. Earlier discussion has noted how social science is always potentially liberating and in certain instances necessarily so (and here I include resource management – for the ‘management’ element clearly implies an applied anthropic interest – although I picture it as an intersecting subset of both the natural and social sciences as well extending beyond the bounds of the sciences into other realms of inquiry and modes of discourse).

Many other features of critical realism are of potential value in further developing a form for a resource management capable of dealing with the weighty imperatives of the environmental problematique, but I would like now to finish off this discussion by framing, in realist terms, the central question of this thesis.

Essentially, the intention here is to conduct a depth investigation into certain features and causes of business domination in environmental conflict. Following the general four-phase pattern of scientific investigation the study involves: (a) The identification of an epistemically significant problem – namely, the problem of business power and dominance in environmental conflict. The prima facie case for investigation of this phenomenon preceded this chapter; (b) The construction of an explanatory model involving an analogical/retroductive movement. This development follows in Chapters Four and Five, which involves the postulation of certain structural relationships/generative mechanisms which may explain such dominance, and which point to the possibility of further environmental and social costs; (c) The empirical scrutiny of the posited mechanisms. This is carried out here through the case study method. It should be noted here that the realist characterisation of the intransitive as stratified poses significant difficulties here, necessitating the use of a range of techniques to infer or reveal the operation of these mechanisms. The consideration of alternative explanations is partially present, in so

¹⁴⁰ R. Bhaskar, 1993, *Dialectic* p. 53.

¹⁴¹ A. Collier, 1994, *Critical Realism* p. 214.

far as the historical method allows contextual observations. Assessment is on the basis of the criteria proffered earlier by Outhwaite – that the postulated mechanism is capable of explaining the phenomenon, and that we have good reason to believe in its existence. However, the application of different methods to the investigation of this phenomenon is considered to be part of the broader process of inquiry in this field and beyond the scope of this thesis; (d) The fourth phase of corrective work is, likewise, beyond the scope of this initial inquiry. In short, what is constructed here is an exploratory, explanatory and hopefully emancipatory critique into business power.

The Wider Literature on Environmental Conflict and the Research Method

3.1. Introduction

In this chapter I deal with two fairly separate issues. In the first half of the chapter I engage with the wider literature on environmental conflict. I do so to acquaint myself with the context within which I will study business power. Environmental conflict is an inherently 'messy' area where numerous discourses come together, and it is important to be aware of the types of issues that may prevail; this is important for both the following theoretical development, and for the construction of the case studies themselves. A second and important reason why I discuss this literature is because I believe that some of the more prominent strands of scholarship rest upon some questionable assumptions about the role and distributions of social power. It is possible that this project will have critical implications for those approaches to the study of environmental conflict.

In the second half of the chapter I focus upon the broad method utilised here, including the development of the analytical framework, the historical case studies, and the consequent use of the framework to investigate those examples of conflict.

3.2. Environmental Conflict: The Wider Literature

The central purpose of this section is to roam beyond the boundaries of the particular approach adopted here – to situate this project within the wider body of scholarship on environmental conflict. In doing this I will identify the particular strengths and weaknesses of each broad perspective. The strengths of some approaches mean that those works may be of both general (contextual) and specific value throughout the various stages of this project – most usefully within the case studies which are the most interdisciplinary components of this work. The weaknesses of certain approaches not only serve to exclude elements (methods and substantive findings) of such work, but also enable the identification of gaps within the literature, some of which may be filled by aspects of this study. It is important to stress that the process of

defining and justifying the problem through the early stages of this chapter has already wedded this project to a particular perspective: that of a 'vertically integrated' approach which is centred upon theories of the distribution and exercise of power in advanced capitalist society. Hence, this review is only about the *choice* of fundamental approach in a retrospective and partial sense. For having decided to focus upon issues of power and dominance, and having already justified that choice, other features of environmental conflict either become subsidiary or peripheral to these central questions. Moreover, further discussion about the specific merits of various theories of power and dominance, and environmental politics in general, is provided throughout the development of the analytical framework in Chapters Four and Five.

There are countless strands of writing on environmental conflict. This is because they are complex phenomena that involve multiform substantive issues and values. Each dispute represents an elaborate and unique conjunction of causal forces. A consequence of this is that such conflict attracts the interest of many disciplinary (and, as in this instance, trans-, inter- and multi-disciplinary) perspectives. For example, Mernitz discusses economic, legal, social psychological, political and geographical perspectives upon environmental mediation alone – only one occasional feature of these conflicts.¹ Once again, many of these approaches are variously applied or criticised throughout this work. However, the focus is upon four rough groupings of study: (i) The Conflict Resolution Literature; (ii) Analysis of Competing Forms of Reason; (iii) The Partisan Review; and (iii) Academic Case Studies. The first two sets are comprehensive analytical approaches to the subject and they are discussed because they provide mostly theoretical insights.² The second two are featured because diverse narratives of past conflicts provide a fertile reference source for problem definition, theoretical development and, most of all, the execution of the empirical studies themselves.

3.2.(i) *The Conflict Resolution Literature*

The nomenclature of conflict resolution is deceptive. On the broad understanding of conflict set out early in this chapter conflict must be seen as an ever-present social phenomenon, persisting throughout all strata of social life (the empirical, actual and real). Conflict is not in itself a problem – it must be seen as a morally neutral notion – what does matter, however, are the particular forms and effects of specific conflicts. It is not unreasonable to suggest that most, if not all, societies have throughout history experienced destructive and unwanted forms and effects of conflict. Most societies have developed mechanisms for dealing with this – from lexical structures, to violence, to discursive approaches, the responses have been many and varied. A great deal of social organisation is devoted to the avoidance, mitigation and resolution of conflict, but conversely, a great deal of human effort is at times devoted to the initiation and perpetuation of conflict. For here lies the rub; the negative effects of conflict upon one person may be positive effects upon another (the zero-sum type conflict),

¹ Each of which is fragmented. S. Mernitz, 1980, *Mediation of Environmental Disputes: A Source Book* Praeger, New York, Ch. 7.

² This typology is partly analogous with Buhrs and Bartlett's classification of the environmental policy literature into (a) policy process [here conflict resolution], (b) analycentric [technocentric], and (c) meta-policy analysis [into which this study falls]. The partisan and historical categories fall outside this grouping. T. Buhrs, and R. Bartlett, 1993, *Environmental Policy in New Zealand: The Politics of Clean and Green?* Oxford University Press, Auckland, Ch. 1.

occasionally conflict benefits all parties (win-win), but often it is to everyone's detriment (lose-lose).

Returning to the issue of the 'conflict resolution' literature, despite its generic label this body of work has developed in a highly specific context. It has evolved as a branch of learning within western democracies over the past twenty years or so, its direct antecedents include prior developments in such academic disciplines as international relations, social psychology and labour relations/management. More specifically, it has developed in countries with adversarial legal systems – most notably the United States and Britain – where dominant juridical dispute processes were seen to be failing in crucial respects, namely through; high litigation costs, the inevitable polarisation of parties and destruction of relationships, the production of zero-sum solutions, the marginalisation of third-party (polycentrism) interests and values, and (especially regarding environmental matters) the questionable proficiency of the courts in integrating both complex scientific/technical evidence and diverse value types.³ The conflict resolution literature has thus come to focus upon non-judicial discourses, primarily, the process and principles of bargaining and negotiation,⁴ collective/consensual/creative problem solving,⁵ institutionalised and non-institutionalised forms of mediation, and structures or strategies for 'managing' conflict⁶ – subjects which segue

³ L. Fuller, "The Forms and Limits of Adjudication" in; K. Winston, (ed.), 1981, *The Principles of Social Order* Duke University Press, Durham NC, pp. 87-124.

⁴ See H. Raiffa, 1982, *The Art and Science of Negotiation* Harvard University Press, Cambridge Ma; S. Goldberg, E. Green, and F. Sander, 1985, *Dispute Resolution* Little, Brown and Company, Boston. The social psychology literature is extensive and dominant here, especially behaviourist studies. Cf.; J. Rubin, and B. Brown, 1975, *The Social Psychology of Bargaining and Negotiation* Academic Press, New York; S. Bacharach, and E. Lawler, 1980, *Power and Politics in Organisations: The Social Psychology of Conflict, Coalitions, and Bargaining* Jossey-Bass, San Francisco; D. Pruitt, 1981, *Negotiation Behaviour* Academic Press, New York; D. Pruitt, and J. Rubin, 1986, *Social Conflict: Escalation, Stalemate, and Settlement* Newbury Award Records, New York. S. Bacharach, and E. Lawler, 1981, *Bargaining: Power, Tactics and Outcomes* Jossey-Bass, San Francisco; E. Lawler, 1992, "Power Processes in Bargaining" *The Sociological Quarterly* Vol. 33, No. 1, pp. 17-34. The most abstract treatments are those from within game theory, eg. A. Rapoport, 1966, *Two-Person Game Theory* University of Michigan Press, Ann Arbor. But much of the literature is at a more accessible level. For example, in the 1980's the Harvard Negotiation Project stimulated what seemed to be a paradigm change in negotiation, advocated a method of negotiation which rejected the traditional positional approach in favour of a *principled* or interest-based method: R. Fisher, and W. Ury, 1981, *Getting to Yes* Houghton Mifflin Co., Boston; R. Fisher, and S. Brown, 1989, *Getting Together: Building a Relationship that Gets to Yes* Business Books, Great Britain – these last two books are 'how to' texts which provide a straightforward exposition of the method. Although whether this shift amounts to a paradigm shift is questionable – see C. Provis, 1996, "Interests vs. Positions: A Critique of the Distinction" *Negotiation Journal* Vol. 12, No. 4, pp. 305-24.

⁵ L. Susskind, and J. Cruickshank, 1987, *Breaking the Impasse: Consensual Approaches to Resolving Public Disputes* Basic Books Ltd, New York; Also, K. Mackie, (ed.). 1991, *A Handbook of Dispute Resolution: ADR in Action* Routledge, London; G. Tillett, 1991, *Resolving Conflict: A Practical Approach* Sydney University Press, Sydney, Ch. 5. The 'brainstorming'/creative problem solving approaches have been influenced by an array of works on generic thought processes. Cf. R. Thouless, 1974, *Straight and Crooked Thinking* Pan, London; B. Heir, 1986, *The Professional Decision Thinker* Sidgwick and Jackson, London; J. Adams, 1987, *Conceptual Blockbusting* Penguin, Harmondsworth.

⁶ Once again, much of the literature is in the form of 'how to' manuals: L. Bacow, and M. Wheeler, 1984, *Environmental Dispute Resolution* Plenum Press, New York; S. Mernitz, 1980, *Mediation of Environmental Disputes: A Source Book* Praeger, New York; L. Lake, (ed.), 1980, *Environmental Mediation: The Search for Consensus* Westview Press, Boulder Co; L. Susskind, and A. Weinstein, 1980, "Towards a Theory of Environmental Dispute Resolution" *Boston College Environmental Affairs Law Review* No. 9, pp. 311-57; J. Crowfoot, and J. Wondolleck, 1990, *Environmental Disputes: Community Involvement in Dispute Resolution* Island Press, Washington D.C. For more academic studies of environmental mediation see: A. Talbot, 1983, *Settling Things: Six Case Studies in Environmental Mediation* Conservation Foundation, Washington D.C. provides some useful fairly in-depth case studies; P. Adler, P. 1995, "Pig Wars: Mediating Forest Management Conflicts in Hawaii" *Negotiation Journal* Vol. 11, No. 3, pp. 209-16. Is a useful study; G. Bingham, 1986, *Resolving Environmental Disputes: A Decade of Experience* Conservation Foundation, Washington D.C. For

into one another. The broad field has come to be labelled *alternative dispute resolution* (ADR).⁷ In practice these forms of decision-making have come to sit alongside, or be integrated within, existing modes of decision-making.

The literature on environmental conflict resolution is, as Nakamura et. al. observe, animated by a “boosterism” which reveals its authors’ positions as not only proponents, but also practitioners, of this discipline.⁸ Indeed, the level of uncritical advocacy has led Rabe to describe it ironically as the “new panacea”.⁹ On the basis of the principles of meaningful participatory democracy outlined earlier, and in pursuit of the goal of sound environmental decision-making, ADR seems intuitively attractive – it offers a framework that could potentially remedy serious deficiencies in preponderant forms of decision-making. However, as with classical pluralism, the normative-prescriptive content of the theory has functioned as an assumptive and interpretive model which confuses the ‘ideal type’ consultative process with the reality of disputes as complex conjunctures influenced (enabled and constrained) by very powerful causal mechanisms. This is not to say that there won’t be instances where ADR techniques are highly successful. But it is necessary to study the relative empirical success or failure of these, and other modes of decision making (including juridical), by moving beyond the superficial assessment of techniques and tactics to carefully examine contextual factors. It is only in this way that we can come to understand what ADR has achieved, and what it can realistically accomplish. Hence, it is for this reason that Rabe considers (in the North American context) such cultural factors as the tradition of adversarial conflict and disdain for bargaining. He also examines factors such as the demand for exactitude (i.e. such as in scientifically established health standards) and a reluctance to compromise, and also the lack of data on whether negotiated outcomes have indeed been any better than otherwise.¹⁰ By far the best analysis of ADR and environmental conflict is Douglas Amy’s *The Politics of Environmental Mediation*. He argues that not only does mediation “open up a new form of participation in environmental politics, but also introduces new forms of cooptation and political control”.¹¹ The focus of Amy’s investigation is, as in this thesis, the problem of power. His position is that environmental mediation should only occupy a relatively minor role in environmental politics because it requires a relative balance of power to function well. He devotes some energy to arguing that a broad balance of power between environmentalists

a quantitative analysis of mediation, which also contains an appendix with fifty micro-studies; and D. Amy, 1987, *The Politics of Environmental Mediation* Columbia University Press, New York. In the New Zealand context see: C. Blackford, 1992, *A Review of Environmental Mediation: Theory and Practice* Centre for Resource Management, Information Paper No. 32, Lincoln University, Christchurch. And with respect to the current institutional framework for environmental mediation; C. Blackford, 1992, *Guidelines for Monitoring Additional Dispute Resolution Processes within the Resource Management Act* Centre for Resource Management, Information Paper No. 39, Lincoln University, Christchurch.

⁷ It is a label which is defined in operational terms more by what it is not (‘alternative’) than by any distinctive common attributes. R. Nakamura, T. Church, and P. Cooper, 1991, “Environmental Dispute Resolution and Hazardous Waste Cleanups: A Cautionary Tale of Policy Implementation” *Journal of Policy Analysis and Management* Vol. 10, No. 2, p. 206.

⁸ *Ibid.*, pp. 206-7.

⁹ Rabe, while supportive of the general concept of ADR, is suspicious of the claims of ADR proponents which are made on the basis of ‘self analysis’ rather than any rigorous and independent study. B. Rabe, 1988, “The Politics of Environmental Dispute Resolution” *Policy Studies Journal* Vol. 16, No. 3, pp. 590-1.

¹⁰ *Ibid.*, pp. 590-8; Also, A. Marcus, M. Nadel, and K. Merrikin, 1984, “The Applicability of Regulatory Negotiation to Disputes Involving the Nuclear Regulatory Commission” *Administrative Law Review* No. 36 (summer), p. 236.

¹¹ D. Amy, 1987, *The Politics of Environmental Mediation* p. 199.

and industry does not exist (certainly not in the U.S. during the latter half of the 1980s).¹² Amy's research is very useful, yet it can be categorised as a neo-pluralist analysis, and while strong in terms of observable power relations it fails to fully investigate the structural mechanisms at work.

The conflict resolution literature is of assistance in understanding some of the mechanics of phenomenal forms of environmental conflict (eg. in the following case study it helps in the understanding of the conflict process), and works, such as those of Rabe and Amy, are of critical importance here. However, most of the research and writing in this field is premised upon the existence of a balance of power (apart from the negotiation literature that sees inequality of power as an inherent feature of social life – a *realpolitique* perspective that does not comprehend inequality in negative terms¹³). To their credit, many practitioners recognise this point and will not recommend the use of these methods under such conditions.¹⁴ However, this is not always the case and today large corporate law firms and planning consultancies offer ADR services, such as for community consultation and conflict management, to development interests. At its worst ADR can function as a legitimising mechanism, a means of 'buying off' and cleverly dividing potential opposition to projects with potentially destructive environmental effects.

3.2.(ii) *Competing Forms of Reason*

Another body of literature that while not investigating conflict *per se* is of considerable relevance, is the analysis of competing forms of reason in environmental political economy. I will only discuss the work of two contributors – Robert Bartlett and John Dryzek.¹⁵

The starting point here is the notion of reason or rationality. Both Bartlett and Dryzek concern themselves, in the first instance, with broad, possibly generic, forms of reason. For the sake of brevity I list these:

- (a) *Functional* or formal rationality.¹⁶ The rationality intrinsic to particular social forms or systems – "... an organisation is functionally rational ... when it is so structured as to provide or increase, or preserve, some good in a consistent, dependable fashion".¹⁷
- (b) *Substantive* rationality. The application of rational calculation to the furtherance of definite goals or values ...".¹⁸ Or as Herbert Simon puts it – "the [substantive]rationality of an action involves its derivation by logical processes from valid premises".¹⁹

¹² Ibid., 204-26.

¹³ But not always, see: N. Rouhana, and S. Korper, 1996, "Dealing With Dilemmas Posed by Power Asymmetry in Intergroup Conflict" *Negotiation Journal* Vol. 12, No. 4, pp. 353-66.

¹⁴ Ibid., Ch. 5.

¹⁵ There is an extensive body of literature on questions of reason and rationality. I only touch upon some useful examples that deal explicitly with environmental issues. Two valuable recent analyses are: J. Elster, 1989, *Solomonic Judgements: Studies in the Limitations of Rationality* Cambridge University Press, Cambridge; E. Gellner, 1992, *Reason and Culture: The Historic Role of Rationality and Rationalism* Basil Blackwell, Oxford.

¹⁶ Following K. Mannheim, 1940, *Man and Society in an Age of Reconstruction* Kegan Paul, London, pp. 52-3. And also Weber on formal rationality, see; H. Gerth, and C. Wright Mills, 1991 (1948), *From Max Weber: Essays in Sociology* Routledge, London, pp. 138-9.

¹⁷ P. Diesing, 1962, *Reason in Society: Five Types of Decisions and their Social Conditions* University of Illinois Press, Urbana, p. 3.

¹⁸ Anthony Giddens discussing Weber's use of this term. 1971, *Capitalism and Modern Social Theory: An Analysis of the Writings of Marx, Durkheim and Weber* Cambridge University Press, Cambridge, pp. 183-4.

(c) *Procedural* rationality. Being “an intelligent system’s ability to discover appropriate adaptive behaviour”. And consisting of “the cognitive processes and procedures used to choose actions”.²⁰

Bartlett’s concern is with (b) and (c), Dryzek’s (a) (although his use of the term is looser and he seems to draw in elements of (b) and (c)). Each author then sets out to apply these overarching types to what Diesing has termed *forms of practical reason*.²¹ In this case it is *ecological rationality*, which is, in general terms, the rationality of living systems – “an order of relationships among living systems and their environments”.²²

Both Bartlett and Dryzek devote considerable effort to the explication of ecological rationality.²³ Bartlett’s formulation is useful, and his emphasis upon the need to consider both substantive and procedural ecological rationality has some merit.²⁴ However it is Dryzek’s more expansive argument which is most relevant here. Dryzek takes a broad functional definition of ecological rationality:

... an ecologically rational structure is one which consistently produces the good of life-support for its components. The order or low entropy which it contains represents its ability to cope effectively with stress or perturbation to the ecosystem.²⁵

Also

Ecologically rational *behaviour* on the part of an agent (such as a human being) may be defined as behaviour which promotes or protects the functional rationality of ecosystems – their stability or homeostasis [also adaptiveness and succession]. Ecological rationality as a *decision rule* for public policy specifies that low entropy of an ecosystem be the first concern in any decision with any implications for it.²⁶

The decision-rule element here points to Dryzek’s central purpose, which is to utilise his conception of ecological rationality as a yardstick for the appraisal of dominant social choice mechanisms. His justification for this test is that the “preservation and enhancement of the material and ecological basis of society is necessary not only for the functioning of societal forms ... but also for the pursuit of *any* value in the long term”. Because of this he argues for the *lexical* primacy of ecological rationality; “the preservation and promotion of the integrity of

¹⁹ H. Simon, “Rationality” in; J. Gould, and W. Kolb, (eds), 1964, *A Dictionary of the Social Sciences* Free Press of Glencoe, New York, pp. 573-4.

²⁰ R. Bartlett, 1986, “Ecological Rationality: Reason and Environmental Policy” *Environmental Ethics* Vol. 8, pp. 224. Following Simon, “From Substantive to Procedural Rationality” in; S. Latsis, (ed.), 1976, *Method and Appraisal in Economics* Cambridge University Press, Cambridge, p. 131.

²¹ P. Diesing, 1962, *Reason in Society: Five Types of Decisions and their Social Conditions* University of Illinois Press, Urbana, p. 238.

²² R. Bartlett, 1986, “Ecological Rationality: Reason and Environmental Policy” p. 229.

²³ *Ibid.*, pp. 229-34; J. Dryzek, 1987, *Rational Ecology: Environment and Political Economy* Basil Blackwell, Oxford, Ch’s 3 and 4.

²⁴ He writes:

Ecological rationality may be an attribute of behaviour and actions, denoting the extent to which such actions are ecologically appropriate within the limits imposed by given conditions (substantive rationality). Or, ecological rationality may describe an intelligent system’s ability to discover appropriate adaptive behaviour – the effectiveness, in light of human cognitive powers and limitations, of the processes and procedures used to make ecologically important choices (procedural rationality).

R. Bartlett, 1986, “Ecological Rationality: Reason and Environmental Policy” pp. 239.

²⁵ J. Dryzek, 1983, “Ecological Rationality” *International Journal of Environmental Studies* Vol. 21, p. 6. It is necessary to stress here that this is a general rule and Dryzek is certainly cognisant of the intrinsic dynamism of biological systems. See footnote in 1.2.(i).

²⁶ *Ibid.*

the material and social underpinning of society – ecological rationality – should take priority over competing forms”.²⁷

Dryzek’s subsequent analysis involves the application of five criteria of ecological rationality²⁸ towards the evaluation of the dominant forms of social choice. His taxonomy of forms includes (with attendant decision-rules in brackets); markets (price signals), administered systems (command), polyarchy²⁹ (partisan mutual adjustment), law (formal rules), moral persuasion (promulgated values), bargaining (formal negotiation), and armed conflict (force). These are of course ideal-types, and the list is neither collectively exhaustive nor mutually exclusive.³⁰ His evaluation is extended and it is not possible to do it justice here. However, he concludes that none of these mechanisms “performs unequivocally well on *any* of the five criteria”. And hence – “none of the more prominent social choice mechanisms in today’s world can stake even a moderately good claim to ecological rationality”.³¹ From this conclusion he proceeds to describe (design) three alternative forms of social choice; the open society, practical reason, and radical decentralisation. But with regard to the purpose and form of this thesis it is his analysis of extant forms which is of most value.

The lexicon of *social choice* is problematic here. Put simply, it implies a level of free will or agency, and of consciousness, which is not always present. One does not have to embrace the strictures of structural determinism to concede the existence of powerful structural tendencies which routinely extinguish individuals’ ability to exercise their ‘choice’. Also, choice is a phenomenon which by definition resides at the level of consciousness – it is thus blind to our unconscious involvement within, and constitution of, social processes. It is also to down-play the struggle or conflict involved. The advocates of this approach may qualify their position by arguing that at least *some* choice is involved in any of these social mechanisms (including force), but it is often crucial to determine who does not get to choose as well as, or instead of, who does. Because of these criticisms forms of practical reason must be understood as involving choices, non-choices, and ‘un’-choices.

But regardless of this ontological mistake, and of the fact that these authors do not frame their discussion in terms of environmental conflict *per se*, their work is of considerable value here. In terms of the thesis as a whole, the baseline or life-support approach taken by Dryzek is useful. Hence the progress in this chapter from the imperative of environmental sustainability – indeed, such an approach conforms with the realist notion of ‘emergence’, where “higher order agencies set the boundaries for the operation of lower order laws”.³² This approach is also an effort to explain the operation and implications of particular causal mechanisms – it is a depth explanatory approach. As a consequence, it is able to contribute here at a number of levels. In theoretical terms it is helpful in the construction of the argument about value form and relations within Chapter Four. On a more ad hoc basis, while Dryzek

²⁷ J. Dryzek, 1987, *Rational Ecology: Environment and Political Economy* Basil Blackwell, Oxford, pp. 58-9. It should be noted here that Dryzek holds that such a life-support approach does not deny the legitimacy of other arguments in favour of environmental values, only that they apply *a fortiori* upon the base-line arguments.

²⁸ These are negative feedback, coordination, robustness, flexibility, and resilience (with robustness and flexibility being substitutable, and resilience contingent). *Ibid.*, p. 54.

²⁹ This is Lindblom’s term – it broadly describes the give and take of political interaction.

³⁰ J. Dryzek, 1987, *Rational Ecology* pp. 63-8.

³¹ *Ibid.*, p. 180.

³² R. Bhaskar, 1993, *Dialectic* p. 53.

deals with each form of practical reason separately he does note that in reality they converge and work complexly. This perspective is invaluable when considering the processes of conflict within the case studies, especially the integration³³ or competition between, and the changing hierarchies of, decision-rules or wider modes of discourse. Although I would like to qualify this by noting that I will not explicitly deal with those ideas, and that they are considered to be contextual insights.

Such an approach would benefit from a realist formulation where first, its concerns are not framed solely in terms of 'choices', and secondly, it is prefaced upon a more sophisticated understanding of the process of social transformation.³⁴

3.2.(iii) *The Partisan Review*

The partisan review embraces a variety of non-academic works which focus upon both past and current episodes of manifest environmental conflict (or series of), and which involve a marked bias – usually, but not always, from the perspective of environmental advocates. I focus upon New Zealand examples here.

An early piece was J.T. Salmon's *Heritage Destroyed* from 1960, which was a call to arms against the destruction of 'scenery' by state development agencies for the purposes of electricity generation. While it does not deal with conflict per se, it was an important generative essay, and, because of its depiction of the political context, is particularly relevant to the second case study which deals with the development of a hydro-electric scheme during this period. Graham Searle's 1980, *Rush to Destruction* is a similar production in response to the activities of the New Zealand Forest Service throughout the 1970's. Two books that do deal with the intricacies of specific conflicts are Paul Powell's *Who Killed the Clutha* and Neville Peat's more recent history *Manapouri Saved!* Powell's book is a detailed study of the extended conflict which preceded the construction of the Clyde dam on the Clutha River. His meticulous in-depth approach results in a useful record of the strategic process of conflict. Peat's history of the Manapouri controversy is probably the most valuable historical study of environmental conflict in New Zealand. While he does proceed from a partisan stance his book is nevertheless a fairly balanced appraisal of the dispute, providing an excellent anatomy of an environmental campaign. Finally, while superficial in content Roger Wilson's *From Manapouri to Aramoana* provides a helpful overview of environmental campaigns prior to 1982, and a description of the environmental movement at that time.³⁵

³³ The question of integration is a hugely important one, Cf: T. Gärling, and G. Evans, (eds), 1991, *Environment, Cognition and Action: An Integrated Approach* Oxford University Press, New York; P. Walther, 1987, "Against Idealistic Beliefs in Problem-Solving Capacities of Integrated Resource Management" *Environmental Management* Vol. 11, No. 4, pp. 439-446.

³⁴ Especially when it comes to attempts at design.

³⁵ J. Salmon, 1960, *Heritage Destroyed: The Crisis in Scenery Preservation in New Zealand* A.H. and A.W. Reed, Wellington; G. Searle, 1975, *Rush to Destruction: An Appraisal of the New Zealand Beech Forest Controversy* A H Reed, Wellington; P. Powell, 1978, *Who Killed the Clutha?* John McIndoe, Dunedin; N. Peat, 1994, *Manapouri Saved! New Zealand's First Great Conservation Success Story: Integrating nature conservation with hydro-electric development of Lakes Manapouri and Te Anau, Fiordland National Park* Longacre Press, Dunedin; R. Wilson, 1982, *From Manapouri to Aramoana - The Battle for New Zealand's Environment* Earthwork Press, Auckland. Another example from the second of the case studies is: K. Chapple, 1987, *The Rape of the Wanganui River: One of New Zealand's Most Misguided Engineering Projects* C and S Publications, Taumararui. The Australian experience is also of value here, particularly the hydro disputes in Tasmania which are the subject of a number of partisan studies. Cf: P. Thompson, 1981, *Power in Tasmania* Australian Conservation Foundation, Hawthorn Vic.; P. Thompson, 1984, *Bob Brown of the*

The writers' predisposition towards one or another perspective is only an exaggeration of the bias which pervades any work, and in any event can be taken into account. Similarly, while such studies may not display the rigour required of serious analysis, they are a legitimate reference source not only within the process of object constitution but also throughout the case studies.

3.2.(iv) Academic Case Studies

Many of the works on environmental conflict discussed previously contain case studies of conflict. However, *comprehensive* case studies of environmental conflict are uncommon, and quality examples of the genre rarer still. I would like to identify some of the better precedents.

A thoroughly comprehensive exemplar of case study research is a two volume study into a dispute over the siting of a dam on the Delaware River which was to affect four states (New Jersey, New York, Pennsylvania and Delaware) in the United States. The first volume *Boundaries of Analysis* tends towards the overtly empirical, containing an extended historical narrative and detailing the substantive issues and value types involved.³⁶ The second volume *When Values Conflict* complements the first with a range of perspectives on the controversy – patterns of discourse, environmental ethics, problems of valuation and the integration of value forms within 'rational analysis' etc. A second study which is also a rigorous investigation of the processes of environmental conflict, is Bartlett's *Reserve Mining Controversy*.³⁷ This study focuses in particular upon complex scientific and technical discourses, and as a consequence it is of special significance and utility for the second of the two case studies here, which is similarly complex. Also of a technical bent, and an excellent historical narrative of conflict, is Wynne's study of the nuclear power disputes in the United Kingdom.³⁸ The emphasis here is upon an institutional balancing act between technocratic decision making and the demand for public/representative participation and accountability. An edited volume of five well constructed narratives of conflict, with no explicit theoretical content, is *The Politics of Physical Resources*, which is a useful 'raw' source.³⁹ Swainson's *Conflict over the Columbia* centres upon a process of formal negotiations, and involves the application of Lindblom's policy models to explain the process.⁴⁰ Finally, Wate's study of an urban land-use conflict has some relevance here because of its focus upon the antagonism between vested economic interests and community groups.⁴¹ Each of these studies is a valuable contribution to the literature on environmental conflict, providing a detailed historical record of these

Franklin River George Allen and Unwin, Sydney; D. Lowe, 1984, *The Price of Power: The Politics Behind the Tasmanian Dams Case* Macmillan, Melbourne.

³⁶ H. Felverson, F. Sinden, and R. Socolow, (eds), 1976, *Boundaries of Analysis: An Inquiry into the Tocks Island Dam Controversy* Ballinger Publishing, Cambridge Ma.

³⁷ R. Bartlett, 1980, *The Reserve Mining Controversy: Science, Technology and Environmental Quality* Indiana University Press, Bloomington.

³⁸ B. Wynne, 1982, *Rationality and Ritual: The Windscale Inquiry and Nuclear Decisions in Britain* The British Society for the History of Science Monographs 3, Chalfont St Giles Bucks.

³⁹ P. Smith, (ed.), 1975, *The Politics of Physical Resources* Penguin, Harmondsworth.

⁴⁰ N. Swainson, 1979, *Conflict over the Columbia: The Canadian Background to an Historic Treaty* McGill-Queens University Press, Montreal.

⁴¹ N. Wates, 1976, *The Battle for Tolmer's Square* Routledge and Kegan Paul, London. For a review of the case study literature on environmental politics see P. Lowe, and W. Rüdiger, 1984, "Review Article: Political Ecology and the Social Sciences – The State of the Art" *British Journal of Political Science* Vol. 16, pp. 513-50.

processes, and explaining a host of different causal features. The only common weakness here is that the emphasis is almost wholly upon the empirical at the expense of investigation of the *actual* and the *real*.

To conclude, earlier discussion of the existing literature detailed a long list of studies that centred or touched upon the phenomenon of business dominance in environmental conflict. All of these studies possess some strength. However, few (if any) incorporate the kind of vertically integrated analysis which, while grappling with the messiness and complex causality of such conflict, is also able to contextualise it and satisfactorily investigate the operation of key generative mechanisms. The discussion of critical realism clarified the need to see the world in this vertically structured and horizontally integrated way, it explained how scientific investigation of both social and natural phenomena is possible, and it provided a basic description of such a process. This section has examined the wider literature on environmental conflict. Little of this is directly congruent with the central question here – the exercise of business dominance in environmental conflict, and not many of these studies can be seen in realist terms as successful examples of depth explanation. However all of this literature is relevant in some way to the conduct of such an investigation.⁴² Hence its inclusion here, and the integration of all of these approaches in some way within the analytical framework and the case studies. Moreover, some of these emphases (especially the ADR literature) serve to hide or distort concerns (such as structural inequality), and hence stand in a functional relationship with those features (note discussion on dialectical explanation). Finally, there are many studies of particular aspects of environmental conflict that have not been discussed, most notably individual disciplinary perspectives. Some of these are drawn upon as the study progresses.⁴³

3.3. The Project Structure and Research Method

Many crucial aspects of method have already been addressed. The purpose of this final section is to deal with residual considerations – mostly issues of practical import. At the end of Chapter Two I established that the overall structure of this project conforms to the four-phase process of scientific discovery. It is with the second and third phases that I am concerned with from this point onwards. That is, (i) the construction of an explanatory model of business power and dominance in environmental conflict, and (ii), the empirical scrutiny of the posited mechanisms – in this case by means of the in-depth historical case study.

⁴² Lowe and Rüdig in their 1984 review essay are critical of the tendency for environmental case studies to be crudely descriptive: "Environmental conflicts have not so far been regarded by researchers as expressions of a new political cleavage, nor has there been significant effort to elucidate the social interests they express". P. Lowe, and W. Rüdig, 1984, "Review Article: Political Ecology and the Social Sciences – The State of the Art" *British Journal of Political Science* Vol. 16, p. 529.

⁴³ One of the most interesting aspects here is the way in which some disciplinary perspectives seek to colonise and dominate the area. For example the methodological imperialism of cost-benefit analysis as a meta-analysis of conflict.

3.3.(i) *The Analytical Framework*

In my brief general introduction, I noted that the analytical framework is set out over the course of two chapters. Chapter Four is concerned with *value* and the human-environment relation, and Chapter Five focuses upon questions of politics and *power*. This approach roughly follows the development of Marx's discussion in *Capital*, where he opens his discussion in *Volume I* with an exposition of the notion of value, before moving on to develop his expansive critique of the capitalist mode of production. Marx's discussion of value was a starting point and crucial organising principle for his investigation of alienation and domination. While my study is far narrower in its approach, I similarly begin my argument about the exercise and consequences of business power in environmental conflict with a discussion of value-form. I would like to stress, however, that my argument does not proceed far along the path of the abstract labour theory. I use the value-form argument in two interconnected ways. First, as a solution to the conundrum of theorising about social class in environmental politics – capital and its interest in commodified values, is placed at the centre of my model and environmentalists and other actors are treated in a residual (and open-ended) way. Secondly, I make a *tendential* connection between the way capital values the world and environmental harm. These are both matters that will be made clearer in Chapter Four. The value-form argument thus allows me to proceed with the development of a model of business power in Chapter Five (again, business is at the centre). That second part of the framework has two major components; The first is a general model of politics in advanced capitalist society, more specifically four broad principles that help describe the relationships between business, the state and non-capitalist civil actors in advanced capitalist society. The second level operates in more specific terms and I set out five generative mechanisms of business power that have been similarly observed by neo-pluralists and Marxists alike. In summary, while on a different scale, and with a focus upon the human-environment nexus, my progression from value form to issues of economic power and politics does have an authoritative precedent in Marx.

The other major issue here is that of theory choice. The challenge is to traverse a path between, on the one hand, the dangers of eclecticism, and on the other hand, the myopia of not only determinism but also of preemptively assigning causal primacy. Also, there is the need to ensure a modicum of consistency, or at least to avoid major contradictions. On account of this, my approach is to anchor discussion in broadly Marxist terms (including classical, neo-, and post-Marxist analyses). The value-form argument is largely based on Marxist observations, but I do draw upon wider ecological observations in developing my own synthesis. The power and politics element is based first on a model of politics described by Claus Offe who is variously described as post-Marxist or neo-Weberian (my reasons for that choice are dealt with in-depth within that discussion). In the latter half of Chapter Five I draw heavily upon the insights of neo-pluralists – especially those, such as Schrecker, who have specifically analysed environmental politics.⁴⁴ The movement between the two broad schools of thought is not necessarily inconsistent, for it is envisaged here that some particular mechanisms usefully studied by neo-pluralists (such as job blackmail or inequalities of resources) are either symptomatic and/or constitutive of those higher-order mechanisms and tendencies theorised by

⁴⁴ See 1.4.

Offe. Moreover, they are of critical analytical importance for they provide the types of mediating concepts – between action and structure – envisaged by Bhaskar in his *position-practice* system.

Once again, the specific merits and faults of each theory of the state and politics, and of specific schools of thought are best described, and theoretical choices explained, as I proceed within Chapters Four and Five.

3.3.(ii) The Case Studies

Having conjectured, in the theoretical framework, a series of expansive and interconnected causal structures it is necessary to proceed with the empirical scrutiny of those mechanisms. This inevitably raises the question; what is/are the most appropriate and optimal research method/s? In this instance it is determined to be the in-depth historical case study.⁴⁵

The reasons for utilising the case study method stem from the convergence of both the investigative imperatives, and from the strengths of the method itself. On the one hand there are the postulated mechanisms which are themselves complex in operation. These are held to function (and are to be studied here) at the levels of the empirical, the actual and the real. Moreover, while potentially significant, these postulates are not considered to be exhaustive or exclusive causal explanations. The task of investigating these mechanisms requires a method which can, *inter alia*, explain them in the unique, open, interpenetrated, context of the complex conjuncture, that is able to deal with their messiness, fluidity and historical contingency, that leaves room for hermeneutical insights, and a method which facilitates *depth* explanation. On the other hand, there is the case study method that can function in exploratory, descriptive and explanatory capacities – all of which are called upon here. The explanatory function is particularly important. Yin notes that case studies, histories and experiments are the most likely procedures for research into ‘how and ‘why’ questions.⁴⁶ The realist dismissal of the experimental process in social science leaves both case studies and histories as options, and given the crossover between the two there seems to be little choice as to the appropriate method here.⁴⁷ The case study method is expansive and flexible, and it is particularly useful because it is able to accommodate a range of specific research techniques within its boundaries – it can thus function in precisely the overarching or integrative sense required.

Two episodes of conflict are studied here because this allows some comparative analysis without compromising the in-depth investigation of each dispute. As Kellow observes

⁴⁵ I note here that Robert Yin in his authoritative text on case study research makes a distinction between the case study and historical research. The position here is that due to the spatio-temporal boundedness of all social activity, such a distinction is an arbitrary one. Furthermore, the two studies here were each commenced within a few years of the end of conflict. However, the duration of in-depth investigation will inevitably situate those events in the realm of ‘recent history’ rather than ‘contemporary analysis’. R. Yin, 1989, *Case Study Research: Design and Methods* (second edition) Sage, Newbury Park, Ch. 1.

⁴⁶ *Ibid.*, p. 18.

⁴⁷ This is not to rule out other methods such as the collection and analysis of quantitative data, or survey research, as ways of finding out about environmental conflict. Only that given the complexity of the model and its *explanatory* focus the case study method is appropriate here. For a quantitative approach see B. Steel, J. Pierce, and N. Lovrich, 1996, “Resources and Strategies of Interest Groups and Industry Representatives Involved in Federal Forest Policy” *The Social Science Journal* Vol. 33, No. 4, pp. 401-419. This position is reinforced by Lowe and Rüdiger where they acknowledge the efficacy of systematic comparative analysis (large n, limited variables) for say the study of trends in institutionalised forms of conflict (for example, wins and losses in law suits), but assert that the dynamics of conflict “are mainly accessible through the case study approach”. 1984, “Review Article: Political Ecology and the Social Sciences” pp. 527-8.

in his advocacy of the comparative case study method; "if we cannot step into the same river twice [with respect to the *sui generis* character of each study], we can at least try to immerse ourselves in similar streams of issues and thus seek insights into points of similarity and difference".⁴⁸ Furthermore, the approach here is to proceed from the relatively straightforward dynamics and substantive detail of the Black Head study to the much more complicated and expansive nature of the Whanganui River Minimum Flows dispute. This development enables a process of adjustment and fine-tuning to occur, and the efficacy of the model can be assessed under complex conditions.

Next, there is the issue of case study choice. This is fairly straightforward. My focus here is upon medium to large-scale environmental disputes. Following the analytical framework, these disputes have to be New Zealand examples, and they have to involve business interests, the State, and environmental interests – preferably a range of these and also other types of interests and values often present in such conflict (eg. Maori participants). In terms of time frames, the cases extend backwards to the periods prior to the emergence of observable conflict – exploring the historical origins and contexts of the disputes. In substantive terms there are no more requirements of the conflicts at this point, other than the above noted one of increased scale and complexity for the second study. They are merely to be 'roughly representative' examples of conflict. The only other determining factors are practical ones such as availability of data – notably, the disputes had to be fairly recent and there had to be access to participants and records.

While neither study is identical in structure or emphasis, they are similarly constructed. Both are intended to be of value in their own right as *histories* of those disputes. The approach is to begin each case by explaining the background to the disputes, the substantive issues, institutional contexts, and the specific arguments of the actors. This is followed in each case by a narrative of conflict, some examination of the substantive outcomes, and the reaction of the various agents to those outcomes. In each study, this is done over three chapters. As I mentioned above, while the types of information I am looking for are determined by the questions in the analytical framework these are largely empirical chapters, and I deliberately go into a great deal of factual depth (especially in the Whanganui conflict). It is in a fourth crucial chapter of each respective study, when I have a full historical and contextual picture of the particular dispute, that I analyse those studies through the systematic application of my framework. I take this approach for a number of important reasons: First of all, it is only by coming to know the conflicts themselves as a whole that it is possible to scan across them looking for how and why a particular mechanism may or may not have operated; Closely related to this, the second reason is that the theorised mechanisms require various degrees of contextual interpretation and inference. They also require a strategic picture; Thirdly, there is the practical matter of the number of mechanisms (eleven) that are to be scrutinised – to follow the describe-analyse-describe-analyse approach and weave the theory through all elements of the studies – would be unworkable and unnecessarily complex; Fourthly, I want to be transparent in my application of the framework. By largely setting out the facts over the first three chapters and then applying the framework it is easier to avoid criticisms of bias or

⁴⁸ A. Kellow, 1996, *Transforming Power: The Politics of Electricity Planning* Cambridge University Press, Cambridge, p. 10. Yin observes that "if two or more cases are shown to support the same theory replication may be claimed". R. Yin, 1989, *Case Study Research: Design and Method* p. 38.

dogmatic interpretation (I make no claim to value neutrality but I do strive for balance). This will allow open criticism of my framework and the positing of alternative explanations – this is consistent with the realist description of social science in Chapter Two. Because of this, the case studies can also act as a resource for the wider study of environmental conflict; Finally, I want to be as consistent as possible in the *process* of interpretation across both conflicts (although not necessarily in the interpretation itself). There is, however, room to place greater or lesser emphasis on elements.

I do not want here to get into the intricacies of data collection and management other than to note that I follow the guidelines set out by Yin. ‘Construct validity’ is ensured by (a) *using multiple sources of evidence*⁴⁹ – specifically, documentation (correspondence and memoranda; agendas and minutes of meetings; administrative documents such as internal reports; formal reports; legal documents such as opinions, evidence, submissions and decisions; other studies of the ‘site’ in question; news clippings and other media articles), archival records (organisational records, maps and charts, photographs, lists of names and other relevant features, survey data, and personal records), interviews (both of an open-ended and focused nature⁵⁰), and direct observation (primarily through field trips to the areas under dispute); And (b) maintaining a *chain of evidence* – that is, to present a transparent process of argumentation throughout the studies, and by including extensive and accurate references.⁵¹ ‘Reliability’ is ensured by both utilising the analytical framework to guide analysis in a similar way in each study, and by the construction of a comparable database for each study.⁵² Thirdly, ‘internal validity’ – the accurate identification of causal relationships – is maintained within the critical realist confines of *contextual explanatory power*.⁵³ And lastly, ‘external validity’ is to a limited extent served by the comparative value of replication over two studies.⁵⁴

I would like to finish this discussion by pointing out that while the case studies function, first and foremost, towards the empirical investigation of the phenomenon of business dominance in environmental conflict, it is also my intention that they be sufficiently broad and robust so as to serve as a resource for further study of environmental conflict.

3.3.(iii) Analysis

Analysis at all levels and stages of the thesis is directed by the exigencies of the analytical model. It is not only fully ‘operationalised’ in a post hoc manner at the end of each empirical study, but as I have already mentioned it does guide data collection and the filtering of material. Following Bhaskar I do not completely separate ‘theory’ from ‘practice’ – discussion

⁴⁹ The rationale for this is explained by Yin, *Ibid.*, pp. 96-98.

⁵⁰ *Ibid.*, pp. 88-91. My approach to interviewing was to begin with open type questions, proceed with a series of common questions (somewhat tailored to each interviewee), and conclude by asking specific questions regarding gaps in my knowledge of the disputes. Interviews constituted a crucial source of evidence in the first conflict, where there was a paucity of documentary evidence and where access to the key participants – all parties except Maori – was easier. However, in the second study a host of participants were reluctant to speak to me – either due to legal privilege, political sensitivity, general inconvenience, issues of mana (the right to speak on certain value questions) etc. The dangers of getting an overly biased picture of events was very real. However this has not ultimately been a problem because the conflict generated a mountain of documentary evidence, including much personal correspondence.

⁵¹ *Ibid.*, pp. 102-3.

⁵² *Ibid.*, Ch’s 3 and 4.

⁵³ *Ibid.*, Ch. 5.

⁵⁴ *Ibid.*

is only relatively concerned with one or the other at any one time. As I noted above, while I will strive for consistency in my approach I place greater or lesser emphasis on aspects of the model in each case; hence the emphasis within the Black Head study upon the 'definition of reality'. This example also illustrates another aspect of analysis, which is the use of supplementary and subsidiary analytical forms or techniques – such as the discounting method in the black Head study. The adoption of ancillary procedures happens at various stages throughout both studies, usually as a means by which to reveal the operation of deeper structural mechanisms.

The need to 'get at' the postulated mechanisms highlights probably the most apparent contradiction here; that having devoted considerable effort to criticising the solitary focus of many scholars upon phenomenal forms (empiricists) at the expense of deeper levels (the essence of realist depth investigation), I now propose to study observable episodes of conflict. There is a real danger in this (as I noted earlier tendencies may exist unexercised, may neutralise one another, and may act conjointly and complexly producing seemingly random events). However my approach is simply to utilise such observable conflict to gain *entrée* to deeper causal structures. Any tendencies identified or inferred will be understood in transfactual terms, and be considered as (potentially) causally efficacious in instances where no observable conflict is present. This approach will become clearer as analysis proceeds.

Finally, of absolute importance is that all of the mechanisms of value and of dominance are to be treated in realist terms as transfactual structures. They may be "possessed without being exercised, exercised without being actualised, and actualised without being empirically identified".⁵⁵ Moreover, each episode of conflict is complex and open, and will be shaped by a multitude of causal forces, and hence the mechanisms posited here will only be partly determinative of events (notwithstanding this, it is hoped that they do in some meaningful part explain those disputes).

3.4. Conclusion

In the first half of this Chapter I dealt with the wider literature on environmental conflict. I will only reflect on the ADR and Competing Forms of Reason literature here. I believe that while of great interest, and indeed promise, each of those strands of scholarship can be considered *idealist* analyses. Much of the literature in each area tends to proceed from an inadequate account of the role of social structure. For example, the design of social-choice mechanisms to increase ecological rationality will always fail unless those projects are grounded in a more thorough understanding of existing power structures and the nature of social transformation. Also, environmental mediation will tend not to mitigate the problem of unequal distribution of resources and power in environmental conflict, indeed it may even perpetuate and legitimate such imbalances. It is hoped that this project will contribute to the development of those discourses.

While methodological issues have been dealt with throughout this preparatory section, and will continue to be discussed in the context of the analytical framework, I have sought to

⁵⁵ R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, p. 23.

clarify the concrete approach taken here. Discussion now turns to the development of the analytical framework.

Value-Form and the Environment

4.1. Introduction:

In this first chapter of the two-part framework I do two things. I argue that it is possible to classify actors in environmental conflict in advanced capitalist society on the basis of value-form – the languages of value that are used by actors and that in turn motivate and shape their behaviour. I do so in realist terms, by making a transfactual and tendential connection between capital and exchange-value – and more widely, between capital and commodified values. Business sits at the centre of this model, and environmentalists are treated in a residual sense as *non-capitalists*. I also make a further and fundamental connection. I argue that commodity valuations of environmental goods are intrinsically problematic in environmental terms; constituting a serious obstacle to the attainment of sustainable socio-ecological relations. Discussion is organised in two parts. In 4.2. I take as a starting point the problem of theorising about class in environmental politics and conflict and I offer my value-form argument as a solution to this. Following that in 4.3. I proceed to investigate the environmental deficiencies of the commodity form.

4.2 Value-Form and the Study of Environmental Conflict

[T]o say that a society has a structure is to say that there are limits to the extent to which it may vary without becoming an instance of a different kind of society.¹

In theorising about business power in environmental conflict one is immediately faced with the conceptual dilemma of class; of differentiating and theorising about relatively enduring sectors of society. This matter needs to be resolved before it is possible to categorise actors within my framework. The difficulty here is that the politics of the environmental problematique have posed a serious challenge to traditional theories of structural dominance. The reasons for this are legion, however I would like, as a preamble to the following analytical framework, to focus briefly upon the particularly fraught issue of class relations.

¹ A. Callinicos, 1987, *Making History: Agency, Structure and Change in Social Theory* Polity Press, Cambridge, p. 39.

The concept of social class is central to Marx's analysis of capitalism. For Marx, the constitution of social classes throughout any epoch in history is primarily in terms of peoples' relationship to the means of production. The fundamental class distinction within capitalist societies is between capitalists and workers. Capitalists being those who hold ownership of the means of production, and workers being those who do not and are thus forced to sell their labour power to the capitalists. In this way each class stands in an antagonistic relationship with the other, the social manifestation of the underlying economic contradictions of the capitalist mode of production².

Yet this undifferentiated dualism has subsequently come into question.³ On the one hand, such developments as the increasing division between ownership and control in the form of the joint-stock company, the growth of a bureaucratic/technocratic elite, and a profusion of affluent professional groups, mean that the character of the 'bourgeoisie' differs from that of traditional ascendant capitalist classes. And, on the other hand, the solidary forms of working class identification present throughout the relatively prosperous decades following the second world war (characterised by Fordist production and Keynesian State managerialism) have subsequently been undermined through both State accommodation of workers' needs and political demands (ie. the very successes of working class politics leading, partially, to their own subversion), and the emergence of a flexible accumulation pattern following the world economic recessions of the 1970s, which has served to fragment the working class (involving, among other things, "relatively high levels of structural unemployment, rapid destruction and reconstruction of skills, modest – if any – gains in the real wage, and the rolling back of trade union power", and a radical restructuring of the labour market towards more flexible regimes⁴).

But while the bi-polar opposition of Marx's schema is less apparent (on the basis of surface forms) it is doubtful that these changes actually negate the core dynamic of the original formulation. In respect to capital, Tom Bottomore notes:

[T]he element of continuity is very great, being sustained both by the considerable overlapping of ownership and management of productive capital and by the ideological commitment of a large proportion of those managers, technocrats and bureaucrats who are not substantial owners of capital to the bourgeois conception of a capitalist market economy, although this does not exclude the possibility of diverse and even contradictory interests and values within the dominant class, or the existence, for example, of important similarities between Western and Soviet societies in the functions, and to some extent in the outlook, of techno-bureaucratic groups.⁵

² I would like, right from the outset, to draw the distinction between the narrow conception of *production* used within orthodox social science and history, and Marx's use of the term. For Marx "production is at the same time also consumption. Twofold consumption, subjective and objective. The individual who develops his faculties in production, is also expending them, consuming them in the act of production, just as procreation is in its way a consumption of vital powers". K. Marx, "Introduction to the Critique of Political Economy" in D. Horowitz, (ed.), 1968, *Marx and Modern Economics* Monthly Review Press, New York, pp. 28-31.

³ This transformation has been described by Anthony Giddens as being "a generalised process of 'decomposition' of class relationships as they existed ... in nineteenth century capitalism ... The decomposition thesis holds the view that the ruling class has ceded place to a more amorphous and differentiated set of 'leadership groups'. In T. Bilton, *et al.*, 1981, *Introductory Sociology* Macmillan, London, p. 186. Also; B. Head, 1984, "Recent Theories of the State" *Politics* Vol. 19, No. 20, p. 42.

⁴ D. Harvey, 1989, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* Basil Blackwell, Oxford, pp. 147-50.

⁵ In A. Heertje, (ed.), 1981, *Schumpeter's Vision: 'Capitalism, Socialism and Democracy' after Forty Years* Praeger, New York, pp. 27-8.

Similarly, the transition to a flexible accumulation strategy may have served to vitiate the class identification of workers, undermining “the objective basis for class struggle”,⁶ but it has not altered the reality of capitalist production:

Growth in real values rests on the exploitation of living labour in production. This is not to say that labour gets little, but that growth is always predicated on a gap between what labour gets and what it creates.⁷

There is thus continuity by means of the underlying structural logic of capitalism. This does not, however, offer an easy solution to the problem of political activity in this highly differentiated world – whether in terms of analysis or activism.

Environmental politics introduces a whole new set of difficulties for class analysis. There have been two broad approaches: The first is the *a posteriori* method of mainstream social science. Having identified environmental politics as a significant issue, the researcher may then seek to ascertain characteristics (such as social status, wealth and income, political orientation, and education) of support or opposition for ‘environmental’ values, economic behaviour, programs, politics, etc. Sometimes these studies may contrast support for ‘environmental’ values with support for other supposedly competing values.⁸ Such approaches tend to operate on the basis of the Humean ontology criticised in the previous chapter – classes being understood in an agglomerative sense rather than a relational one – and as a consequence they are unable to furnish us with meaningful *causal* explanations. Their strength lies instead in the ability to make *prima facie* connections, the most important being the observation that environmental activism seems to transcend, or be dissonant with, traditional socioeconomic class alignments. But this observation has also been made by those whose approach to the subject of class stems from the alternative structural (predominantly Marxist) tradition. Claus Offe⁹ observes:

I think there are basically two things that are new about these social movements [Offe is concerned here with not only the environmental movement but also, among others, the peace and civil-rights movements – under the broad heading of New Social Movements (NSM’s)]. First, their location within the social structure is by no means marginal. ... Support for the new social movements ... is derived predominantly not from peripheral or underprivileged strata but from groups who themselves play a rather central role in steering and managing what Daniel Bell has called ‘post-industrial’ society. These core groups are relatively well to do and include people from the new middle classes and the professional and service sectors who have the highest levels of education and cognitive skills.¹⁰

Offe is discussing the European context and there are inevitable problems with the direct application of these conclusions to the New Zealand context. However, these observations seem to be consistent with the local experience.¹¹ But while the middle-classes may have made the environment their own as a mainstream political concern, environmental politics

⁶ D. Harvey, 1989, *The Condition of Postmodernity* p. 153.

⁷ *Ibid.*, p. 180. This is of course immediately consequent upon the Marxian labour theory of value, which I do not fully accept (see 4.2.(i)). But I do feel that it speaks some truth about exploitation.

⁸ For a thorough recent review of this type of literature, both in the international and New Zealand contexts see T. Bührs, and R. Bartlett, 1993, *Environmental Policy in New Zealand: The Politics of Clean and Green?* Oxford University Press, Auckland. Ch. 3. For a classic example of this methodology see: R. Inglehart, 1977, *The Silent Revolution: Changing Values and Political Styles Among Western Publics* Princeton University Press, Princeton NJ.

⁹ Whose ‘post-Marxist’ theoretical stance is fairly eclectic. Broadly aligned with the Frankfurt school, he straddles the divide between neo-Marxist and neo-Weberian political sociology.

¹⁰ C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, p. 293; 1985, “New Social Movements: Challenging the Boundaries of Institutional Politics” *Social Research* 52. See also: A. Gortz, 1989, *Critique of Economic Reason* Verso, London, Chapters 8 and 9.

¹¹ T. Bührs, and R. Bartlett, 1993, *Environmental Policy in New Zealand*.

has also been a prominent issue at the extremes of the socioeconomic spectrum. For example, Harvey has drawn attention to the emergence of the movement for environmental justice and against environmental racism as a significant political force in the United States.¹² A movement which arose in response to the tendency for hazardous waste to be dumped in the vicinity of poor or ethnic minority communities.¹³ Such politics, which are not new, consider the plight of the urban poor in the newly industrialised cities of last century. At the other end of the spectrum, corporate capitalists have been at the forefront of environmental initiatives – such as the Club of Rome's *Limits to Growth* strategy.¹⁴ My point here is simply that there is no privileged or exclusive relationship between environmental issues *per se* and socioeconomic location. "Environmentalists" thus "occupy almost every position on the traditional right-to-left spectrum".¹⁵ Indeed, in an immediate sense we are all *enviored* beings standing in relation to our surroundings, hence our politics (and, *ipso facto*, our definitions of 'environment') will reflect this to some extent – although as Enzensberger wryly observes: "If avowed representatives of monopoly capitalism have recently become its [ecology's] spokesmen – as in the Club of Rome – that is because of reasons which have little to do with the living conditions of the ruling class".¹⁶ Which points to the fact that the motivations for supporting environmental initiatives are complex, spanning the spectrum from altruism to maximising self-interest, and from direct use relations through to the most abstract and disconnected commercial impulses.

So in this highly fractured and changing world, is the concept of class at all relevant to, or indeed possible within, the study of environmental politics? My answer to this is that not only is some form of class analysis still possible and relevant, but that it is indispensable to the investigation of such contemporary phenomena. Structural analysis (of which the concept of class is an essential tool) remains possible in the investigation of the Capital-Environment relation for almost the same reasons that it remains pertinent to the analysis of the Capital-Labour relation. And so:

To plug the gap requires going back to basics and dealing with the underlying logic of capitalism in general. And it was, of course, Marx's peculiar virtue to have built a theory of capitalism in general through an analysis of capitalism under the broadly competitive and laissez-faire mode of regulation to be found in Britain in the mid-nineteenth century. Let us go back, therefore, to Marx's 'invariant elements and relations' of a capitalist mode of production and see to what degree they are omni-present beneath all the surface froth and evanescence, the fragmentations and disruptions, so characteristic of present political economy. Since flexible accumulation is still a form of capitalism we can expect a number of basic propositions to hold.¹⁷

¹² D. Harvey, 1996, *Justice, Nature and the Geography of Difference* Blackwell Publ., Cambridge Ma, pp. 366-73. See also: J. Martinez-Alier, 1995, "Political Ecology, Distributional Conflicts, and Economic Incommensurability" *New Left Review* No. 211, May/June, pp. 70-88.

¹³ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* pp. 366-73. See also: J. Martinez-Alier, 1995, "Political Ecology" pp. 70-88.

¹⁴ D. Meadows, et al., 1972, *The Limits to Growth* Universe Books, New York. Hans Magnus Enzensberger provided a seminal critique of the class character of environmental politics in his 1974 article: "A Critique of Political Ecology" *New Left Review* Vol.84, pp. 3-31.

¹⁵ R. Paehlke, 1989, *Environmentalism and the Future of Progressive Politics* Yale University Press, New Haven, p. 194. To illustrate the diversity of environmental politics Harvey discusses; authoritarianism, corporate and state managerialism, pluralistic liberalism, conservatism, moral community, ecosocialism, ecofeminism, and decentralised communitarianism. D. Harvey, 1996, *Justice, Nature and the Geography of Difference* pp. 177-181.

¹⁶ H. Enzensberger, 1974, "A Critique of Political Ecology" p. 10.

¹⁷ D. Harvey, 1989, *The Condition of Postmodernity* p. 179.

Harvey is thus indicating a way forward. But this does not explain why these 'invariant elements and relations' are in any way appropriate to theorising the specific Capital-Environment relation.

The solution here is as follows. While 'environmentalists' cannot be easily treated as a monolithic grouping in terms of socio-economic class, there is the possibility that they can be theorised: (a) In *opposition* to capitalists (who can be treated as sufficiently homogenous on the basis of their overriding interest – vis-à-vis ownership and control – in profitable capital accumulation); And (b) on the basis of value-form. This is a functional conception of class and is thus not dependent upon solidary associations or consciousness. Both of these approaches are integrated within the following framework.

In this chapter I focus upon the latter. The adoption of the classical distinction between use-value and exchange-value performs a dual function: First, it allows a political distinction to be made. The interests of capitalists are held, in the first instance, to be with the production of exchange-values, and the interests of environmentalists, in the first instance, with use, and more broadly, non-commodified forms of value. It thus acts analytically as a broad ordering principle for the discussion of environmental politics; Secondly, the commodity form – and especially its most abstract manifestations – is seen to pose inherent difficulties for the attainment or perpetuation of healthy human-nature relations. These elements together enable a systematic connection to be made between socio-economic function and environmental harm. It is a sophisticated conception of value that subsequently enables the discussion of interests, attitudes, perceptions and subjective valuations to be grounded in an understanding of the social relations underlying environmental conflict.

The framework is thus broken into two main sections. Part One deals with the subject of value form and the people-nature relation. Part Two is concerned with issues of power and politics in environmental conflict, also utilising the value-form schema. My approach is in this way initially consistent with that taken by Harvey in his return to Marx. However the consequences of value-form for socio-ecological being were not rigorously theorised by Marx – or at least they were not his central concern – and it is in this respect that I enter new territory.¹⁸ Before I proceed with these discussions I would first like to highlight the significance of the critical realist approach for this analysis.

¹⁸ Although Marx certainly did consider the human-nature connection to be an essential element of social being – through the process of people acting upon the world and the world in turn acting upon them – a process of mutual (and of course dialectical) creation. See Christopher Gosden for an excellent discussion: 1994, *Social Being and Time* Blackwell, Oxford, pp. 68-73. A vigorous debate has recently focused upon Marx's comprehension of 'nature'. The biggest problem though is that Marx espoused a range of views on the subject over the course of his lifetime, from the romantic elements of early works, such as in the 1844 *Manuscripts*, to more mechanistic 'Promethean' statements, such as are peppered throughout the volumes of *Capital*, which seem to deny any notion of natural limits. On Marx and nature see: R. Burgess, 1978, "The Concept of Nature in Geography and Marxism" *Antipode* Vol. 10, No. 2, pp. 1-12; N. Smith, and P. O'Keefe, 1980, "Geography, Marx and the Concept of Nature" *Antipode* Vol. 12, No. 2, pp. 30-9; S. Vogel, 1988, "Marx and Alienation from Nature" *Social Theory and Practice* Vol. 14, No. 3, pp. 367-87. For an interesting debate over the way forward – the ecologising of Marx: T. Benton, 1989, "Marxism and Natural Limits: An Ecological Critique and Reconstruction" *New Left Review* No. 178, November/December, pp. 51-86; R. Grundmann, 1991, "The Ecological Challenge to Marxism" *New Left Review* No. 187, May/June, pp. 103-20; T. Benton, 1992, "Ecology, Socialism and the Mastery of Nature: A Reply to Reiner Grundmann" *New Left Review* No. 194, July/August, pp. 55-74; T. Hayward, 1992, "Ecology and Human Emancipation" *Radical Philosophy* No. 62, pp. 3-13.

The value-form argument, its association with environmental harm, and its consequent utilisation for the investigation of the strategic processes of environmental politics, must be thoroughly comprehended in realist terms as the postulation of (potentially) causally efficacious structural relationships/mechanisms – manifest as *transfactual tendencies*. Hence, the association between capital and exchange-values is a tendential one. Instances to the contrary are by no means immediately problematic or automatically serve to negate the basic propositions. Capitalists will, for example, at times be essentially motivated by use-value or even non-instrumental criteria in environmental matters. Also, the transfactual element means that this tendency may actually operate without being observed, or for that matter without even resulting in a potentially observable *event*. This method goes some way in avoiding the criticism so often levelled at Marxian approaches, which is that of constructing deterministic, totalising theories or meta-narratives.¹⁹ It does not, however, rule out the identification of *enduring* and *widely* active generative mechanisms.

My final point here, then, is the theorising of value-form as an important obstacle to the attainment of healthy human-environment relations, does not in any way deny the significance of other enduring causes of environmental harm – forms which may be pertinent to capitalist societies *per se* (such as a tendency towards over-production), or be of wider relevance (eg. industrial processes or forms of technology). While being a central precept of the “structure of natural/social articulation” in capitalist society,²⁰ and significant in generative terms, value-form can be no more than a partial explanation of environmental problems.²¹

4.3. Value Discourse, Value Form, and the Human↔Environment Relation

Like all forms of social conflict, questions of *value* lie at the heart of environmental conflict. Such questions are manifest as conflicts between competing value discourses; “multiple languages” of value – “scientific, poetic, mythic, moral and ethical, economic and instrumental, emotive and affective”.²² These ‘languages’ are fundamental, because they are not only the means by which environmental issues and values are articulated, they are also frameworks/perspectives/worldviews/systems within which values are ‘constructed’ – they embody processes of valuation.²³ Moreover, in certain respects they are analogous to Dryzek’s and Barlett’s notions of competing social choice mechanisms. They possess their own internal logics or rationalities, and like those social choice mechanisms they interact and affect one another, and most significantly here, they become (create and perpetuate)

¹⁹ To the extent that it is at all possible to avoid these criticisms.

²⁰ T. Benton, 1989, “Marxism and Natural Limits” p. 77.

²¹ As Reiner Grundmann points out: “If I say that Marx’s framework is still illuminating, this does not mean that it gives us a point of reference which is sufficient for the understanding of ecological problems.” 1991, *Marxism and Ecology* Clarendon Press, Oxford, p. 6. See also Lynton Caldwell in: S. Nagel, (ed.), 1974, *Environmental Politics* Praeger Publishers, New York, p. 281.

²² The very existence of multiple languages may be considered at least partially responsible for the existence of conflict. D. Harvey, 1996, *Justice, Nature and the Geography of Difference* p. 172.

²³ This is by no means to deny the significance of material elements in shaping such values.

discourses of power and dominance.²⁴ It is the process by which the value discourses of capitalism “dependent upon the money calculus and the market” result in the elevation and dominance of instrumental, utilitarian and abstract forms of value, which concerns me here.²⁵

Before I begin, there are a number of requirements that *value* places upon an explanatory schema. Environmental values, as instantiated within specific conflicts, represent a unique intertexture of elements – such as place, time and inter-/intra-subjectivity – a *sui generis* connection. It is therefore necessary to generalise, to characterise types or forms of value (thus, unavoidably, constructing a value discourse of one’s own). Such a typology or schema of value must, however, be sufficiently flexible to be inclusive of all (reasonably foreseeable) *sui generis* manifestations encountered in the empirical research. For example, from monetary valuations, through direct use-values, to notions of ethical and moral community and the “intuitive sense of intrinsic natural value”.²⁶ Hence, while the central value dichotomy of classical economics – the split between use and exchange values – occupies a focal position in the following value analysis, both elements of this distinction fall within the categories ‘instrumental’ or ‘utilitarian’. There is thus a danger here of establishing a value schema which systematically marginalises some very important forms of value.

Despite this danger this axial distinction remains at the core of my framework, for it remains the central antinomy of capitalist valorisation. However when I operationalise the value component of the model for the organisation of the case studies I use the broadly consistent categories of *commodified* and *non-commodified* values. This arrangement allows for the inclusion of a wider range of specific value types, without reducing the force of the central analytical split.

4.3.(i) *The Use-Value/Exchange-Value Distinction and the Simple Commodity Form*

Marx defined the capitalist society as a “commodity producing society”.²⁷ It is not surprising, then, that for Marx the analysis of the commodity is the key to the understanding of capitalism as a whole. The commodity is a fulcrum that facilitates the unravelling of the “intricate secrets of capitalism itself”.²⁸ Like discussion in *Capital* I begin here with a dissection of the commodity form. I do not, however, follow the abstract labour theory of value that is central to Marx’s approach. Instead, I hold to the more basic use-value/exchange-value distinction of classical economics (following Adam Smith) – my interest is with the tensions of *value-form* rather than the distillation of a social universal

²⁴ Indeed, as Harvey observes “there is in this eclecticism an omnipresent danger. Not only do different discourses lie uneasily side by side But the careful analysis of the way power relations get embedded in distinctive discourses suggests that the vast conceptual muddle and cacophony of discourses is far from innocent in the reproduction of capitalism.” *Ibid.*, p. 173.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ K. Marx, 1958 (1867), *Capital: A Critical Analysis of Capitalist Production* Vol. 1, Foreign Language Publishing House, Moscow.

²⁸ D. Harvey, 1982, *The Limits to Capital* Basil Blackwell, Oxford, p. 1.

value character (which for Marx, is found in the labour component of commodity production – manifest in his confusing analytical category; *value*).²⁹

Reuten and Williams introduce the commodity in the following way; “The necessary interplay of the exchange relation and the value form in the market thus actually constitutes the useful object as an entity of *double form* – *use value* and *money* [exchange-value]. This doubling constitutes the useful object as commodity.”³⁰

The use-value of the commodity embodies the connection between people and the world through the ability of an object or ‘thing’ to satisfy a potential want or need; “the object of satisfaction of any system whatever of human needs”.³¹ It largely represents the material side of the commodity, for almost all commodities possess physical qualities that endow them with use-values (it was understood by Marx to be the *bearer* of exchange-value³²). It is in this sense that Wilden aligns use-value with matter/energy.³³ Although it is probably more accurate to say that use-relations *are* flows of matter/energy, whereas use-valuations *represent* such flows (that is, they are laden with information about such). Moreover, to define use-values solely on the basis of the fundamentally important material substratum, is of course to ignore other rich textual or *subjective* elements of use. There is another important aspect in the use-value relationship – *proximity* or connection. It is in the use-relation that people come into contact with the material world and vice versa. The use-value can therefore be seen as a direct and highly *qualitative* value representation of relationships between people and nature, and the products of such relations, throughout all social systems and epochs.

The exchange-value of the commodity (and it is here that I diverge from Marx’s definition³⁴) is simply the power of the commodity “to command certain quantities of other

²⁹ My original intention was to proceed along the path of the abstract labour theory. Marx’s value analysis is very sophisticated and constitutes a powerful critique of capitalist exploitation of labour. However, the concentration upon the labour component as the social universal of value poses great difficulties from an ecological perspective, among others (for a recent criticism see R. Grant, 1997, “Fetishising the Unseen” *Inquiry: An Interdisciplinary Journal of Philosophy* Vol. 40, No. 4, pp. 443-6.). Certain elements of Marx’s analysis are drawn upon here (for example the insights of commodity fetishism), but in essentially metaphorical terms. For Marx’s mode of dialectical argument, its relational character, and hermetic internal coherence – as a totality of concepts – mostly precludes the ad hoc appropriation of components of his framework. In short, you either go fully down his road, or you proceed along a different path. Some academics have pursued a path to an ‘ecologised marxism’ which holds to the labour theory of value. In such schemas the labour process embodies the mutual making of people and the world – a concept which certainly contains much truth – however it raises ‘labour’ to an almost metaphysical level. Furthermore, these advocates seem to proceed from an extreme anthropocentrism incorporating a picture of the world as almost wholly shaped by human action. However, it is my view that while human beings have impacted extensively upon ‘nature’, there are many elements of material causality, and issues such as ‘natural limits’, which must be acknowledged. As Claus Offe has observed: “The assumption about the centrality of labour within classical Marxism must ... be questioned. ... the work role is only partly determinative of social existence”. 1984, *Contradictions of the Welfare State* Heinemann, London, p. 283. On the ecologising of Marxism debate see footnote [18] above. On the abstract labour theory of value see especially Harvey’s explication in *The Limits to Capital* Chapter 1. Also; J. Cameron, K. Cole, and C. Edwards, 1983, *Why Economists Disagree* (first edition) Longman, London, Ch. 8.

³⁰ G. Reuten, and M. Williams, 1989, *Value Form and the State: The Tendency of Accumulation and the Determination of Economic Policy in Capitalist Society* Routledge, New York, p. 63.

³¹ K. Marx, 1973, *Grundrisse* Penguin, Harmondsworth, p. 881. There are exceptions, as commodified things such as intellectual property may not have material form.

³² K. Marx, 1972, *Capital* Vol. III, Lawrence and Wishart, London, p. 647. See also Alfred Schmidt, 1971, *The Concept of Nature in Marx* New Left Books, London, p. 15.

³³ Wilden makes this distinction in dialectical relation to exchange-value, which he links to *information*. A. Wilden, 1972, *System and Structure: Essays in Communication and Exchange* Tavistock, London, p. 252.

³⁴ Which incorporated labour value as the universal component of all exchange-values.

commodities in exchange" – a logic of equivalence.³⁵ It is predicated upon exchange relations, predominantly manifest in capitalist societies through the workings of the market mechanism. It is important to make clear that the exchange-value embodied within the commodity form is of a particular type. Exchange relations, in general, take many forms (for example the thoroughly analysed form of 'gift exchange'), and hence they perform many functions (such as the establishment and maintenance of social, and indeed socio-ecological, relationships). Wilden, following the semiotic turn of many anthropological studies, thus writes of the *symbolic function* of exchange – the 'sign of a relation'.³⁶ However it is possible to see an even more immediate pre-interpreted or material character in some 'reciprocal' exchange relations with the natural world, that is, at the level of thermodynamic or ecological necessity.³⁷ Grouped together these types of exchange founded upon 'reciprocity' or 'mutuality' are closely related to use, essentially because of the direct and enduring relations that are established between giver and receiver, producer and consumer.³⁸ But the exchange-value of the commodity must be distinguished from these basic forms. In commodity exchange there is an inherent disconnection from use-values. This is because the valorisation process is located solely in the nexus of exchange, with the exchange-value not being a direct or even necessarily close function of use but rather a *mirror* relation. Its value exists only *relative* to the other commodity/ies being exchanged. It is the total replacement of the 'of itself' with 'against'.³⁹ It is also a form of value that wholly corresponds to information rather than the often-material substratum of use.⁴⁰ In brief, the exchange-value is an abstraction that emerges wholly out of social

³⁵ T. Bottomore, (ed.), 1991, *A Dictionary of Marxist Thought* (second edition), Basil Blackwell, Oxford, p. 561. Also, J. Baudrillard, 1981, *For a Critique of the Political Economy of the Sign* Telos Press, St Louis MO, p. 130.

³⁶ A. Wilden, 1972, *System and Structure* p. 253.

³⁷ Take, for instance, Martin O'Connor's discussion of Lewis Hyde's work on North American Indian tribes of the Pacific coast:

In ecological terms, each participant in the web of life lives through the 'gift' of others. Cessation of exchange is synonymous with death. One can understand the thermodynamic basis for life in the same terms. The whole biosphere is nourished by the influx of solar radiation, whose eventual counterpart is the dissipation of heat back into space. The sustenance of life activity within the biosphere depends on an incessant exchanging between systems in the way of food intake and waste disposal. In ecological perspective, 'we understand that what nature gives to us is influenced by what we give to nature'. What is important, suggests Hyde, is that the ceremonies assert, and establish at the level of social institution, 'a gift relationship with nature, a formal give-and-take that acknowledges our participation in, and dependence on, natural increase'.

1990, *Sustainability, Commitment and Ineluctable Change* Working Papers in Economics No. 75, Department of Economics, University of Auckland, p. 3; L. Hyde, 1983, *The Gift: Imagination and the Erotic Life of Property* Vintage/Random House, pp. 19, 26-27.

³⁸ Christopher Gosden provides an interesting discussion on the differences between gift exchange and commodity exchange:

Because commodities can be alienated from the people who produced them they set up transactions between individuals who remain independent of each other. By contrast, gifts always retain an attachment to the person who produced them and thus create a lasting and dependent relation between producer and receiver. Lasting attachments limit the economic uses to which gifts can be put: in particular, they make capital accumulation impossible.

1994, *Social Being and Time* Blackwell, Oxford, p. 83.

³⁹ This is not to deny the importance of consideration of the 'other' in any valuation process. Such processes are necessarily dialectical.

⁴⁰ A. Wilden, 1972, *System and Structure* p. 252.

relations – it is a mental abstraction and cannot, therefore, “be either a geometrical, a chemical, or any other natural property of commodities”.⁴¹

Of course, both aspects need to be present for a thing to be a commodity. For example, every commodity has a use-value, but not every use-value is a commodity; “for use-values which are either freely available or not exchanged, have no exchange-value”.⁴²

The commodity thus consists of a particular relation between two forms of value, in which, most significantly, the two forms are not directly connected – *no systematic relationship exists between the exchange-value of a commodity and the properties which give it its use-value*.⁴³ Similarly, Wilden observes that “any object of exchange may be valued in an entirely arbitrary way”.⁴⁴ The implications of this disconnection are the subject of further discussion later in this section.

It is necessary here to make the (transfactual and tendential) connection between capital and value-form, between social class and *type* of substantive value connection with the world. Two separate passages of Marx’ are apposite here:

It is only in so far as the appropriation of ever more and more wealth in the abstract becomes the sole motive of his operations, that he functions as a capitalist, that is as capital personified and endowed with consciousness and a will. Use-values must, therefore, never be looked upon as the real aim of the capitalist ... the restless never-ending process of profit-making alone is what he aims at. This boundless greed after riches, this passionate chase after exchange-value⁴⁵

The product appropriated by the capitalist is a use-value, as yarn, for example, or boots. But, although boots are, in one sense, the basis of all social progress, and our capitalist is a decided ‘progressist’, yet he does not manufacture boots for their own sake. Use value is by no means the thing ‘qu’on aime pour lui-même’ in the production of commodities. Use-values are only produced by capitalists because, and in so far as, they are the material substratum, the depositories of exchange-value. Our capitalist has two objects in view: in the first place, he wants to produce a use-value that has a value in exchange, that is an article destined to be sold, a commodity; and secondly, he desires to produce a commodity whose value shall be greater than the sum of the values of the commodities used in its production, that is of the means of production and the labour power, that he purchased with his good money in the open market.⁴⁶

The connection between capital and exchange-value is thus a systemic one.

Lastly, while not part of this internal value relation, the core dynamic of capitalism – the profitable accumulation of capital – is predicated upon both a qualitative and quantitative expansion, indeed universalisation, of the commodity form. That is, not only the expansion in the production and consumption of existing types of commodities (ie. a simple growth function), but also the extension of the commodity form into new arenas (incorporating both new and existing forms of use). This relentless process of commodification has manifold implications (for example, the associated establishment of exclusive property rights), but of greatest significance here is the extension of this particular value-form, with its inherent internal tensions/disconnections, into a greater and greater portion of socio-ecological being.⁴⁷

⁴¹ K. Marx, 1958 (1867), *Capital* p. 37.

⁴² B. Fine, 1989, *Marx’s Capital* (third edition), Macmillan, London, p. 8.

⁴³ *Ibid.* p. 10.

⁴⁴ A. Wilden, 1972, *System and Structure* p. 252.

⁴⁵ K. Marx, 1958 (1867), *Capital* pp. 152-3.

⁴⁶ *Ibid.*

⁴⁷ For example, see Martin O’Connor on the capitalisation of nature: 1993, *On the Misadventures of Capitalist Nature* Working Papers in Economics No. 110, Department of Economics, University of Auckland, p. 2 and *passim*.

4.3.(ii) *The Money Form and Commodity Circulation*

The riddle presented by money is but the riddle presented by commodities ... but in its most glaring form.⁴⁸

In developed systems of commodity circulation exchange-values are expressed as money values. The money form is pivotal. Marx's analysis of the money form, like his analysis of capitalism in general, proceeds in historical terms. Harvey summarises here:

Marx treats the simple commodity form as the 'germ' of the money form. An analysis of direct barter shows that commodities can assume what he calls the 'equivalent' and 'relative' forms of value. In an initial state, each community or bargaining agent will possess commodities that operate as the equivalent form of value. With the proliferation of exchange, one commodity (or set of commodities) will likely emerge as the 'universal equivalent' – a basic money commodity such as gold. The relative values of all other commodities can then be expressed in terms of this money commodity, 'Value' consequently acquires a clearly recognisable, unique and socially accepted measure. ... we can also see ... that a general system of commodity exchange would be impossible without money to facilitate it. The growth of exchange and the emergence of the money commodity therefore necessarily go hand in hand.⁴⁹

Indeed, the concomitant development of both commodity circulation and the money form as universal equivalent progresses beyond this. The commodity character of money – as an entity of double form – becomes even less apparent. In a fully developed capitalist system money no longer possesses an inherent use-value,⁵⁰ rather, it takes the form of *pure* exchange-value.

Hence in the process of developed commodity circulation (Commodity–Money–Commodity ...), there is not only the internal disconnection between use-value and exchange-value intrinsic to the most basic commodity, but also an ongoing external process of both disconnection and abstraction via the commensuration of heterogeneous entities in the "social-universal homogeneous form of money".⁵¹ Marx referred to this higher level abstraction as the "double exchange-value" of the money commodity.⁵² In this way the dilemma of measuring and communicating values against one another is resolved but only "at the expense of internalising the duality of use-value and value within the exchange-value of money itself".⁵³

The money-form is the sole expression of value within markets. The up-shot of this, coupled with the earlier noted dynamic of commodification, is for the money-form to be an increasingly dominant expression of value in capitalist society. It is expected that this will extend into environmental discourses, and more specifically the value discourses of environmental conflict. It has been argued that the money-form of value involves a further abstraction from that already located within the simple commodity-form. The implications of both the dominance of the money-form of value, and of the logical disconnection/abstraction inherent within the double exchange-value is discussed next.

⁴⁸ K. Marx, 1958 (1867), *Capital* p. 93.

⁴⁹ D. Harvey, 1982, *The Limits to Capital* p. 11.

⁵⁰ Other than its functions/characteristics as a measure of value, fiduciary store of value, and as a medium exchange – use-values which are identical in any quantity of money.

⁵¹ G. Reuten, and M. Williams, 1989, *Value Form and the State: The Tendency of Accumulation and the Determination of Economic Policy in Capitalist Society* Routledge, New York, p. 63.

⁵² K. Marx, 1973, *Grundrisse* Penguin, Harmondsworth, pp. 145, 200.

⁵³ D. Harvey, 1982, *The Limits to Capital* pp. 11-12.

4.3.(iii) *Disconnection, Abstraction and Commodity Fetishism*

We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.⁵⁴

Where money is not itself the community, it must dissolve the community ... It is the elementary precondition of bourgeois society that labour should directly produce exchange value, i.e. money; and similarly that money should directly purchase labour, and therefore the labourer, but only insofar as he alienates his activity in the exchange ... Money thereby directly and simultaneously becomes the real community, since it is the general substance for the survival of all, and at the same time the social product of all.⁵⁵

Both Leopold the ecologist, and Marx the political-economist, each working in the context of widely differing worldviews, identify the commodity-form as a source of alienation and exploitation.⁵⁶ For Leopold it leads to the exploitation of the biotic community, whereas for Marx it is implicated in the process of the exploitation of the worker through their alienation from the products of their labour. Their respective approaches to the dilemma of commodification subsequently diverge, with Leopold seeking an ethical remedy ("Land-use ethics are still governed wholly by self-interest, just as social ethics were a century ago"⁵⁷). Marx, on the other hand, paints a more intractable picture, the solution to which would require the wholesale subversion of commodity relations rather than the development of an ethical adjunct. Nevertheless, the process of commodification is identified by both as being implicated in the causation of socio/socio-ecological harm.

To identify how this is so it is useful to first consider some broad elements of ecosystem function. The realist ontology contained in Chapter Two is consistent with ecological perspectives. It describes a world of complex, open and consequently interpenetrated (hence co-dependent), and dynamic systems. Furthermore, the relational character of the world "implies a 'circularity' of actions, responses and reactions" – systems of material/energetic/information feedback.⁵⁸ In Chapter One there was some discussion

⁵⁴ A. Leopold, 1949, *A Sand County Almanac and Sketches Here and There* Oxford University Press, New York.

⁵⁵ K. Marx, 1973, *Grundrisse* Penguin, Harmondsworth, pp. 224-6.

⁵⁶ I am indebted here to Harvey's juxtaposition of these two passages. See: 1993, "The Nature of Environment" p. 3; 1996, *Justice, Nature and the Geography of Difference* p. 120.

⁵⁷ A. Leopold, 1949, *A Sand County Almanac* p. 209. In later discussion Leopold provides further elucidation of his understanding of the relationship between economics and ethical constraint:

It of course goes without saying that economic feasibility limits the tether of what can or cannot be done for land. It always has and it always will. The fallacy the economic determinists have tied around our collective neck, and which we now need to cast off, is the belief that economics determines all land use. This is simply not true. An innumerable host of actions and attitudes, comprising perhaps the bulk of all land relations, is determined by the land-users' tastes and predilections, rather than by his purse. The bulk of all land relations hinges on investments of time, forethought, skill, and faith rather than on investments of cash. As a land-user thinketh, so is he.

Ibid., p. 225.

⁵⁸ Lynton Caldwell in: S. Nagel, (ed.), 1974, *Environmental Politics* Praeger Publishers, New York, p. 279. One has to be extremely careful here not to assume a picture of *absolute* circularity, for this necessarily implies the operation of closed systems which, as has been made quite clear, is not the case. A more accurate picture of the operation of natural systems is provided by Kenneth Stokes in a chapter called "Neophysiological and Biophysical Models", in which he draws upon 'open systems-theory'. In: K. Stokes, 1994, *Man and the Biosphere: Toward a Coevolutionary Political Economy* M.E. Sharpe, New York, Ch. 3. Including a penetrating discussion on the disjunction between the assumptions of circular models of economic activity and the underlying physical reality characterised by linear and uni-directional matter-energy flows – "beginning with the depletion of low-entropy resources from the environment and ending up with high-entropy wastes and pollution of the environment". pp. 103-110.

about the notion of sustainability as an ecological principle (which is not always present in nature) and as a widely accepted normative principle upon which human societies – their socio-ecological connection – can be organised. Any sustainable system will, in terms of the above noted ontology, consist of sustainable *relations* and sustainable relations are necessarily relations of reciprocity and mutuality.⁵⁹ They are also relations of complex *qualities*, whether in terms of matter/energy or information. Which brings me to the processes of commodification and monetisation.

There are at least four essential ecological difficulties posed by the commodity form: First, it has been argued that the use-value/exchange-value split within the commodity form involves an inherent disconnection. No systematic relation exists between the two. In ecological terms this disconnection poses great problems because it represents a qualitative break in the interchange between people and nature. A consequence of the blindness of exchange-value to the rich and manifold qualities of things, and to the particularities of the production process (other than in the minimisation of the financial cost of manufacture and maximisation of exchange-value) is that many environmental (and other) costs are subsequently ‘externalised’ – they are not accounted for within the exchange-value. This is an absolutely fundamental effect; Secondly, commodity exchange is based upon a logic of equivalence (and for that matter equivalence in the abstract) not one of reciprocity. The material/energetic/qualitative elements of commodities do not pass back and forth along the same pathway in a dialectical relation, for this circuit is broken by the presence of the general equivalent form of money; Directly associated with this there is the third problem – the exchange relation in capitalist society does not, in general, establish any enduring *commitment* between people (and places, environments, etc.), rather, it is an ephemeral commitment between alienable things; And fourthly, as Harvey has pointed out, capitalist commodity relations and money valuations are predicated upon a “Cartesian-Newtonian-Lockean and in some respects ‘anti-ecological’ ontology” of how the natural world operates – the ontology which was extensively criticised in Chapter Two:

Money prices attach to particular things and presuppose exchangeable entities with respect to which private property rights can be established or inferred. This means that we conceive of entities as if they can be taken out of any ecosystem of which they are a part. We presume to value the fish, for example, independently of the water in which they swim. The money value of a whole ecosystem can be arrived at, according to this logic, only by adding up the sum of its parts, which are construed in an atomistic relation to the whole. This way of pursuing monetary valuations tends to break down when we view the environment as being construed organically, ecosystemically, or dialectically.⁶⁰

Yet none of these problems, singularly or conjointly, negate the *ultimate* connectedness that exists in natural systems. Hence O’Connor observes that the interconnection of complex open systems means that significant negative externalities will have to be reconciled in some way.⁶¹ There is in this way a link between the specificities (internal unsustainable relations) of each atomistic commodity relation, and system-wide

⁵⁹ M. O’Connor, 1990, *Sustainability, Commitment and Ineluctable Change* Working Papers in Economics No. 75, Department of Economics, University of Auckland, p. 4. Reciprocity and mutuality are essential characteristics which allow a system to experience change whilst maintaining the integrity of that system (ie. maintain a state of dynamic homeostasis). For an extended discussion of this need see; A. Clayton, and M. Radcliffe, 1996, *Sustainability: A Systems Approach* Earthscan Publications, London, Ch. 3.

⁶⁰ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* p. 153.

⁶¹ M. O’Connor, 1990, *Sustainability* p. 4.

disturbances such as acid rain.⁶² Of great importance here is that one of the effects of such cumulative disconnection is conflict – including environmental conflict – this will be of interest in later analysis of the two case studies.⁶³

The money *articulation* of value further exacerbates this disturbance. As noted previously, the commensuration of heterogeneous entities in the social-universal homogenous form of money is a process of abstraction. This abstraction has a number of very significant consequences. The first of these is clearly revealed in Marx's penetrating notion of *commodity fetishism*:

The exchange of commodities for money is real enough, yet it conceals our social relationships with others behind a mere thing – the money form itself. The act of exchange tells us nothing about the conditions of labour of the producers, for example, and keeps us in a state of ignorance concerning our social relations as these are mediated by the market system.⁶⁴

Such social conditions and relations are not the only information concealed by the market calculus, the money form also abstracts from the specifics of time and place, and hence from the *socio-ecological* relations of commodity production.⁶⁵ Cronon, in a study of the development of nineteenth century Chicago illustrates this exact point:

Living in the city means consuming goods and services in a market place with ties to people and places in every corner of the planet, people and places that remain invisible, unknown and unimagined as we consume the products of their lives. The market fosters exchange relationships of almost unimaginable complexity, and then hides them from us at the very instant they are created, in that last moment when cash and commodity exchange hands and we finally consume the things we have purchased.

Also,

The geography of capital produced a landscape of obscured connections. The more concentrated the city markets became and the more extensive its hinterland, the easier it was to forget the ultimate origins of the things it bought and sold.⁶⁶

Now if this was the case in Chicago over a hundred years ago, then it is difficult to comprehend the infinitely complex and often ephemeral webs of interconnection which must persist in the present world of global commerce, advanced communication technologies, the extension of commodity relations into all realms of social life, and rampant consumerism. Webs that remain hidden behind the same veil of money relations.

Another fundamental consequence of abstraction is the effect that it has upon value discourses. Namely, that the commensuration of heterogeneous entities within the money

⁶² This is a classic case of unintended consequences arriving from the rational behaviour of the individual: "As regards unintended consequences, Marx was one of the first social scientists who systematically treated this mechanism. He employed this kind of analysis himself when he demonstrated both on the political and economic level how individual rationality can bring about collectively undesirable outcomes" R Grundmann, 1991, *Marxism and Ecology* p. 71. See also J. Elster, 1985; *Making Sense of Marx* Cambridge University Press, Cambridge.

⁶³ On the relation between the capitalisation of nature and political conflict between states see: L. Timberlake, and J. Tinker, 1985, "The Environmental Origins of Political Conflict" *Socialist Review* Vol. 15, No. 6.

⁶⁴ D. Harvey, 1982, *The Limits to Capital* p. 17.

⁶⁵ In a discussion of 'fetishism' Jean Baudrillard most interestingly notes that while commodity fetishism pertains to exchange-value:

use-value – indeed, utility itself – is a fetishised social relation, just like the abstract equivalence of commodities. Use value is an abstraction. It is an abstraction of the system of needs cloaked in the false evidence of a concrete destination and purpose, an intrinsic finality of goods and products.

This does not, however, negate my overall value schema. The issue here is that of capitalist valorisation – ultimately founded upon a system of needs, real or not. Discussion within the case studies allows for the inclusion of value discourses not formed on the basis of 'utility'. See: J. Baudrillard, 1981, *For a Critique of the Political Economy of the Sign* Telos Press, St Louis Mo, pp. 130-42.

⁶⁶ W. Cronon, 1991, *Nature's Metropolis: Chicago and the Great West* W.W. Norton, New York, pp. 378-84, 340; See also, D. Harvey, 1996, *Justice, Nature and the Geography of Difference* pp. 231-4.

form constitutes a moral failing – a failing which lies at the heart of capitalist relations. As Harvey observes: “Money hardly satisfies as an appropriate means to represent the strength or manifold complexity of human wants, desires, passions and values”. And later:

[M]oney supplants all other forms of imagery (religion, traditional religious authority, and the like) and puts in its place something that either has no distinctive image because it is colourless, odourless, and indifferent in relation to the social labour it is supposed to represent, or, if it projects any image at all, connotes dirt, filth, excrement, and prostitution.⁶⁷ The effect is to create a moral vacuum at the heart of capitalist society – a colourless self-image of value that can have no purchase upon collective as opposed to individual social identity. It cannot provide an image of social bonding or of community in the usual sense of that term (even though it is the real community in the sense that Marx meant it) and it fails as a central value system to articulate human hopes and aspirations in collective terms. Money is what we necessarily aspire to for purposes of daily reproduction and the realisation of individual desires, wants, and needs. In this sense money does indeed become the community; but a community emptied of any moral passion or of humane meanings even though it engages human passions in furious and obsessive ways.⁶⁸

These comments bring discussion back to the comments made by Leopold and Marx and quoted at the beginning of this sub-section. The basic thesis here is the one noted earlier: that the value discourses of capitalism (viz. commodification and monetisation) result in the elevation and dominance of instrumental, utilitarian and abstract forms of value. Such forms are intrinsically problematic in ecological terms, constituting a serious obstacle to the attainment of sustainable socio-ecological relations. It should be noted that the dominance of the money form across all value discourses in capitalist society – through the homogenisation, concealment and suppression of other forms – is one of the mechanisms by which business exerts its influence within environmental conflict (for further discussion see 5.4.(iv)).

A final caveat is required. The above discussion has dealt with inherent *problems* of value-form. But, in 2.4.(i) it was noted that social structures (which the commodity-form undoubtedly is) can be both *enabling* as well as constraining. Money may be, as Marx held, a leveller and a cynic, but it remains the only universal yardstick of value. And while money is an alienated human power, it is *the* basic form of social power (although not exclusively so) in capitalist society, and as such it provides the common and practicable means by which we seek to “achieve, liberate, and even emancipate” our desires:

Its neutral and universal qualities as a mere thing can be put to use in an infinite number of ways for purposes that may be judged good or bad as the case may be. The lack of any moral judgement inherent in the money form itself, can liberate the individual from direct repressive social constraints (though whether with good or bad effects may be debated). This leads to the powerful argument that the market is by far the best mechanism yet devised to realise human desires with a maximum of individual freedom and the minimum of socio-political restraints.⁶⁹

We are thus faced with an equivocal situation. But this, in itself, does not vitiate the above argument. Value-form does have a significant generative role in the causation of ecological harm whether or not money is beneficial in other ways. The ultimate purpose here is to increase the learning capacities of society (the emancipatory role of social science). While, on the one hand, the ecological problems derivative of value-form may ultimately outweigh the benefits of capitalist commodity circulation, on the other hand they may not, in which case it will still be necessary to find ways of mitigating the ecological inadequacies of the

⁶⁷ Harvey is here reiterating a perspective held by Simmel, Marx, Freud, and others. The moral failings of money have been dealt with most recently, and colourfully, by James Buchan, 1997, *Frozen Desire: The Meaning of Money* Farrer, Strauss and Giroux, New York, on Marx and money see chapter 8.

⁶⁸ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* pp. 155-6.

⁶⁹ *Ibid.*, p. 151.

market mechanism (such as, for example, through Leopold's ethical adjunct – the *Land Ethic*, or by internalising ecological and social costs within prices by means of the institutional design of market frameworks, etc.). Either way, this will require a greater understanding of the impacts of commodity circulation and money relations.

4.4. Conclusion

I began discussion with the dilemma of theorising about class in the context of environmental politics/conflict; of differentiating and theorising about relatively enduring sectors of society. This question needed to be resolved before it was possible to *categorise* actors within my framework. The difficulty is that environmental activism seems to transcend or be dissonant with traditional socioeconomic class alignments. My solution to the problem is as follows. While 'environmentalists' cannot be easily treated as a monolithic grouping in terms of socioeconomic class, there is the possibility that they can be theorised; (a) in *opposition* to capitalists (who can be treated as sufficiently homogenous on the basis of their overriding interest – vis-à-vis ownership and control – in profitable capital accumulation), and (b) on the basis of value-form. This is a functional conception of class and is thus not dependent upon solidary associations or consciousness. I integrate both approaches into the framework, but it is the latter foundation that is central.

The adoption of the classical distinction between use-value and exchange-value performs a dual function: First, it allows a political distinction to be made. The interests of capitalists are held, in the first instance, to be with the production of exchange-values, and the interests of environmentalists, in the first instance, with use-values (and, more broadly, non-commodified forms of value). It thus acts analytically as a broad ordering principle for the discussion of environmental politics; Secondly, the commodity form – and especially its most abstract manifestations – is seen to be intrinsically problematic in ecological terms, constituting a serious threat to the attainment of sustainable ecological relations. These elements together allow a systematic connection to be made between socioeconomic function and environmental harm. It enables subsequent discussion of interests, attitudes, perceptions and subjective valuations to be grounded in an understanding of the social relations underlying environmental conflict, and vice versa.

Business, State and Environment

5.1. Introduction

Once again the starting point for my argument is commodity production. What follows is an argument about the derivation and exercise of social power out of the ownership and control of commodity production. The argument is split into two sections: The first phase operates at the level of the broad structural relations which persist between capital, the state, and other social agents (principally here, environmental actors) in advanced capitalist societies. This is an argument about relatively enduring functional relations and it is theorised on the basis of 'state theory' – structural models of power and politics. A series of broad functional principles are set out, each of which acts as a general causal imperative in the politics of environmental conflict. These principles explain how business derives political power at a system-wide level; In the second phase of the argument discussion turns to more specific generative mechanisms which serve to facilitate, and indeed, are themselves evidence of, business dominance. Where the first phase is in a sense state centred, the second phase is more focused upon capital's dominance within competitive society. Moreover, this second element develops out of the more abstract structural theory with many aspects approximating the system of mediating concepts that Bhaskar referred to as the position-practice system. Again, it is necessary to emphasise that these mechanisms and relationships are theorised in realist terms as transfactual relations, and they do not, therefore, constitute a totalising or deterministic framework.

Before I begin with the first phase I will clarify what is meant here by the underlying concepts of *power* and *dominance*. Bhaskar articulates a realist understanding of power in two forms:

- Power₁: The transformative capacity intrinsic to the concept of action.
- Power₂: The capacity to get one's way against either the overt wishes and/or the real interests of others in virtue of structures of exploitation, domination, subjugation and control.¹

The first form is a generic conception that acknowledges the ubiquity of power relations throughout all areas of social life.² However the analysis of social relations tends to involve two further features: the identification of a *particular relation* between social agents

¹ R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, p. 256.

² Steven Lukes makes the same observation in; W. Outhwaite, and T. Bottomore, (eds), 1993, *The Blackwell Dictionary of Twentieth-Century Social Thought* Blackwell Reference, Oxford, pp. 504-5.

(including relations within and between social structures), and the crucial differentiation between *significant* and *non-significant* affecting.³ Bhaskar's second definition incorporates these requirements, firstly, by referring to the capacity to (Power₁) get one's way *over others* (the relational aspect), and secondly, the significance of any power relation is ascertained by regard to people's *overt wishes and/or real interests*.⁴

Finally, the concept of dominance was introduced in the previous chapter as: a particular type of relationship which displays (or possesses) a systematic or tendential, asymmetry of power (Power₂) between individuals (and groups), and between individuals (and groups) and nature, and the products of such relations. This definition is consistent with the above definitions of power. The associated term, *structures of dominance*, simply means structures of power (Power₁ – including extrinsic and intrinsic factors) generative of dominance. It should be emphasised that a relation of dominance is understood here to be simultaneously and dialectically a relation of exploitation.

5.2. Marxist Theories of the Capitalist State

In Chapter Three I noted that I would restrict my focus to broadly Marxist theories of the state. However this initial restriction itself embraces a plethora of perspectives, each with divergent starting points and methodologies, etc. I provide a brief tour here to explain my choice of state theory.⁵ The *instrumentalist* approach is expressed in Marx and Engels' dictum that the "executive of the modern State is but a committee for managing the affairs of the whole bourgeoisie".⁶ Instrumentalism is society centred, positing the state as an instrument of class domination. Barrow observes that such approaches tend to rely on the method of power structure research.⁷ As a result, this perspective is strongly empirical.⁸ Standing in contradistinction to instrumentalism is *structuralism*. The structuralist perspective is constituted in functional terms; "the superstructural functions which pertain to the domain of the state can generically be summarised as the protection and reproduction of the social structure (the fundamental relations of production), in so far as this is not achieved

³ This distinction between 'broad' and 'narrow' senses of power has been drawn by a number of writers, Cf. S. Lukes, 1974, *Power: A Radical View* Macmillan, London, *passim*; T. Benton, 1981, "'Objective' Interests and the Sociology of Power" *Sociology* Vol. 15, No. 2, pp. 173-4; A. Giddens, 1977, *Studies in Social and Political Theory* Hutchinson, London, pp. 347-8.

⁴ It should be noted that the use of the concept *real interests* (sometimes referred to as objective interests) has been identified as problematic because it remains 'indispensably evaluative' and thus stands as an 'essentially contested' foundation. T. Benton, 1981, "'Objective' Interests and the Sociology of Power" *Sociology* Vol. 15, No. 2, p. 176.

⁵ For the basic typology used here I am indebted to Clyde Barrow, 1993, *Critical Theories of the State: Marxist, Neo-Marxist, Post-Marxist* University of Wisconsin Press, Madison Wn. An alternative overview and typology of state theory can be found in, B. Jessop, 1990, *State Theory: Putting Capitalist States in their Place* Polity Press, Cambridge, Ch. 3.

⁶ K. Marx, and F. Engels. 1967, *The Communist Manifesto* Penguin, New York.

⁷ "Power structure research is a methodological approach which views the organised control, possession, and ownership of key resources as the basis for exercising power in any society. Key resources typically consist of wealth, status, force, and knowledge". C. Barrow, 1993, *Critical Theories of the State* p. 13.

⁸ The most prominent example is: R. Miliband, 1969, *The State in Capitalist Society: The Analysis of the Western System of Power* Quartet Books, London. Which stimulated a resurgence of Marxist theorising about the state. This approach, labelled by C. Wright Mills as "plain marxism" has been strongest in the United States. Cf. C. Mills, 1962, *The Marxists* Dell, New York; G. Domhoff, 1990, *The Power Elite and the State* Aldine de Gruyter, New York; M. Zeitlin, 1989, *The Large Corporation and Contemporary Classes* Polity Press, Oxford.

by the automatic processes of the economy".⁹ The capitalist economic system is seen to incorporate fundamental structural contradictions that generate accumulation crises. Hence the preeminent role of the state is to avoid, remedy and mitigate such crises, thereby maintaining the requisite conditions for profitable accumulation. The purpose of empirical work in this field is to investigate why and how this maintenance function operates at particular historical conjunctures; The instrumentalist-structuralist divide can in a sense be seen as a dispute over the ontological and methodological primacy of either action or structure, and over their respective utility in explaining what is distinctly capitalist about the state – a fundamental divergence which featured prominently in 2.4. Another factor is that while both instrumentalism and structuralism theorised the state as being capable of serving the needs of capitalist accumulation, the crisis tendencies of capitalism during the 1970s and the ascension of radical neo-liberal programs in response to those conditions, raised serious questions about the viability of the welfare state as a stabilising mechanism.

These empirical questions and the above noted methodological antinomy led to the development of a third approach which has been variously labelled *derivationism* or the *capital-logic* school.¹⁰ This approach proceeds through the logical derivation of state functions out of the developing needs of capital accumulation – for example, the need to provide a general legal framework (eg. private property and contract law) and to address market deficiencies (eg. infrastructural needs and to deal with negative externalities).¹¹ A central analytical insight of derivationism is that it questions the ability of the capitalist state to provide for the needs of capital in the long term. This assertion is essentially founded upon the increasing constraints placed on the state by both globalisation and political democracy.¹² While derivationism has resulted in extremely rigorous analytical developments, it has failed in its efforts to transcend the methodological divide between agency and structure. The historiography of political development has been secondary to logical derivation, and as a result derivationism has failed to generate, and indeed be informed by, such historical work. Finally, the fourth category here is the *systems-analytic*

⁹ E. Mandel, 1975, *Late Capitalism* New Left Books, London, p. 474. For a general discussion on this perspective see: C. Barrow, 1993, *Critical Theories of the State* Ch.2. Structuralism was the dominant approach of neo-Marxism in the 1970s. It was, in great part, a response to instrumentalism, and this was most clearly the case in Poulantzas's rejoinder to Miliband, and the prominent debate which ensued. See: N. Poulantzas, 1969, "The Problem of the Capitalist State" *New Left Review* No. 58, pp. 67-78; 1976, "The Capitalist State" *New Left Review* No. 95, pp. 63-83; 1978, *Political Power and Social Classes* Verso, London. For a useful discussion of the crisis tendencies of capitalism see: J. O'Connor, 1987, *The Meaning of Crisis: A Theoretical Introduction* Basil Blackwell, New York.

¹⁰ An extensive and recent review of the development of, and arguments within, derivationism, can be found in: S. Clarke, (ed.), 1991, *The State Debate* Macmillan, London. See also; C. Barrow, 1993, *Critical Theories of the State* Ch. 3. Of some influence in the construction of this framework (including the value component) is a specific variant of derivationism which deduces the functions of the state out of the nature of value-form itself (by, for example, recognising that the capitalist mode of production does not internalise all of its costs and that this results in significant contradictions throughout the social formation, contradictions which need to be reconciled in some way – i.e. by the state). This theorising is strongly influenced by Hegel, proceeding in dialectical terms. See: M. Williams, 1988, *Value, Social Form and the State* Macmillan, London; G. Reuten, and M. Williams, 1989, *Value Form and the State: The Tendency of Accumulation and the Determination of Economic Policy in Capitalist Society* Routledge, New York.

¹¹ C. Barrow, 1993, *Critical Theories of the State* p. 8.

¹² *Ibid.*, p. 92. On the issue of the globalisation of capital and the state see: S. Picciotto, and H. Radice, 1973, "Capital and State in the World Economy" *Kapitalstate* No. 1, pp. 56-68. And more recently; J. Holloway, 1994, "Global Capital and the Nation State" *Capital and Class* No. 52, Spring, pp. 23-49. On the dilemma of political democracy see especially: G. Therborn, 1977, "The Rule of Capital and the Rise of Democracy" *New Left Review* No. 103, pp. 3-41.

or 'post-Marxist' approach.¹³ This approach draws upon elements of both structuralism and derivationism in describing broad systemic imperatives which are placed upon (and in fact define) the state. Most particularly, there are the often conflicting state functions of promoting capital accumulation whilst simultaneously maintaining democratic legitimacy. The fundamental insight of the systems-analytic approach is that the state may fail in its efforts to reconcile these twin imperatives – there is no necessary or ultimate conjuncture between the needs of the capitalist formation and the functioning of the state.¹⁴

The question of theory choice is difficult. Each of these approaches can locate its antecedents somewhere within Marx's work, a fact that rules out, or at least problematises, any fundamentalist claims.¹⁵ Additionally none of these approaches has ultimately displaced the others. The reason for this is that each approach has a different and legitimate point of departure, and moreover, each approach generates certain truths about the functioning of the state in particular, and politics in general, in advanced capitalist societies. Furthermore, the idea of a grand synthesis is both elusive and, according to those such as Barrow, misguided.¹⁶ Against this uncertain background, I have decided to place Claus Offe's systems-analytic theorising at the centre of my schema. I do so for three basic reasons. First of all, because the disjunctural possibility at the heart of Offe's model – that the state may not necessarily succeed in realising the interests of the capitalist class – is potentially consistent with a realist understanding of the operation of complex open systems, as opposed to deterministic frameworks.¹⁷ One has to be careful here because Offe's

¹³ A good introductory discussion is contained in C. Pierson, 1984, "New Theories of State and Civil Society: Recent Developments in Post-Marxist Analysis of the State" *Sociology* Vol. 18, No. 4, pp. 563-571. This approach is associated mostly with the work of Claus Offe, Jurgen Habermas, and Andre Gortz. Offe and Habermas's intellectual roots lie with the 'critical theory' of the Frankfurt school, hence their integration of Marxist and non-Marxist perspectives (for example, Offe portrays the state in Weberian terms as a rational bureaucratic form of domination. However he characterises the wider social system in Marxist terms, that is, as a class society). Cf. C. Offe, "The Theory of the Capitalist State and the Problem of Policy Formation" In L. Lindberg, (ed.), 1975, *Stress and Contradiction in Modern Capitalism* D C Heath and Co, London, pp. 125-44.

¹⁴ Barrow discusses a further approach that he labels 'organisational realism'. C. Barrow, 1993, *Critical Theories of the State* Ch. 5. This approach can be considered 'state centred' in that it posits a high degree of state autonomy from the exigencies of capital accumulation. This approach proceeds through general historical work, and can thus be seen as a methodological corrective to the broadly deductive and highly theorised strategies of much of neo- and post-Marxism. Much of the research in this category can be alternatively labelled 'neo-Weberian' due to both its ontological assumptions (see 2.4), and its relative emphasis upon the bureaucratic rationality of state institutions. Cf. T. Skocpol, 1979, *States and Social Revolutions* Cambridge University Press, London; T. Skocpol, 1985, "Bringing the State Back In: Strategies of Analysis in Current Research" In. P. Evans, et al., 1985, *Bringing the State Back In* Cambridge University Press, New York; F. Block, 1980, "Beyond Relative Autonomy: State Managers as Historical Subjects" *Socialist Register* No. 14, pp. 227-42.

¹⁵ As Bob Jessop observes: Marx "did not offer a theoretical analysis of the capitalist state to match the scope and rigour of *Das Kapital*. His work on the state comprises a fragmented and unsystematic series of philosophical reflections, contemporary history, journalism and incidental remarks. 1977, "Recent Theories of the Capitalist State" *Cambridge Journal of Economics* Vol. 1, p. 354.

¹⁶ See C. Barrow, 1993, *Critical Theories of the State* Ch. 6, "The Antinomies of State Theory".

¹⁷ Although, I am aware that Offe's approach can itself be seen as 'deterministic' by virtue of its prediction that such disjunctures are inevitable consequences of the inherent contradictions of capitalist production. It is in this respect that Simon Clark refers to Offe's approach as 'structural-functionalist'. S. Clark, (ed.), 1991, *The State Debate* Macmillan, London, p. 15. My position is that it is possible to operationalise Offe's generative principles along realist lines, although the consequence of this is that it must be recognised that; (a) the crisis tendencies of capitalism are just that – tendencies, and (b) the ability or inability of the state to deal with such crises is contingent (the state will not necessarily fail as crisis theory asserts). The downside of such an understanding is that it seriously limits the predictive capacity of *a priori* theorising about the state. This is totally consistent with the realist approach detailed previously.

'functionalist' prediction of disjuncture can be construed as equally deterministic. Yet it is possible to avoid these deterministic elements by comprehending his posited mechanisms in realist terms, and by rejecting the certainty of Offe and Habermas's crisis predictions. Secondly, Offe has endeavoured to account for social groupings and interests that do not define themselves along traditional class lines (ie. environmental advocates), and there is room in his model for further theorising about such phenomena.¹⁸ And thirdly, Offe's model seems, at least in the first instance, to raise up a series of empirically operable principles (albeit at a very general level).¹⁹ It must be noted here that my argument is not closed to other strands of state theory, many elements of the systems-analytic approach are totally consistent with aspects of structuralism and derivationism, and I draw upon these resources where appropriate.

As a caveat here, a central weakness of Offe's approach is that its functionalism seems to discount the importance of agency – a problem that has been central to discussion thus far. It is my opinion that by acknowledging the activity-dependent character of the social world (ie. by subscribing to critical naturalism) it is possible to avoid the error of reifying structures. This problem is further attenuated through the final section of the framework which, as well as postulating a suite of more specific generative mechanisms, stands as a methodological counterbalance to this functionalist approach. In fact this type of historical corrective is entirely consistent with Offe's broader methodological prescription, that is to supplement systems analysis with historical investigation.²⁰

Before I detail the four analytical principles at the core of Offe's model, it is appropriate to briefly discuss a couple of background features. The first of these is the concept of the state itself. The state is another 'essentially contested' concept in political theory. The formulation of the state concept tends to swing between the extremes of either structuralism or institutionalism, where the former understands the state to be a series of functions wholly derivative of the historical needs of capitalism ("state institutions are viewed only as arenas for the exercise of political power and exist as such only by virtue of their functional role in capitalist society"²¹), and the latter defines the state as a matrix of organisations and actors. Each approach is, *in extremis*, at best partial and usually difficult to sustain.²² Offe's stance is itself ambiguous for he has on the one hand defined the state on the basis of a series of functional principles – those set out below, and on the other hand he has elsewhere pointed to the need to integrate institutional elements into the concept

¹⁸ This requirement has also been integrated in the work of André Gortz. N.B. 1989, *Critique of Economic Reason* Verso, London.

¹⁹ That is, on the basis of the realist criteria for theory choice – empirical fertility, heuristic plausibility, synoptic power etc.

²⁰ For example, Offe sees systems analysis and policy history as jointly providing a critique of the capitalist state's regulatory capacities. It should be acknowledged, however, that Offe has not himself furnished any in-depth examples of this type of systematic, historically informed, work. C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, p. 35.

²¹ C. Barrow, 1993, *Critical Theories of the State* p. 57-8. See also: B. Jessop, 1982, *The Capitalist State: Marxist Theories and Methods* Martin Robertson, Oxford, pp. 221, 223-4.

²² For example, the institutional approach is beleaguered by the problem of ascertaining the boundaries of the state. See G. Poggi, 1990, *The State: Its Nature Development and Prospects* Stanford University Press, Stanford, p. 184.

(although he has not provided any concrete direction as to how this is possible).²³ My belief is that Offe's dual approach is by no means inconsistent; rather, it heralds an unavoidable amalgam.²⁴ Thus, my explication of Offe's (and others') broad functional principles of state action contained here are complemented and supplemented later through my references to the state within the case studies in a manner which treats the state as an historical matrix.

My second comment is to reiterate the centrality of the process of capital accumulation, and the concomitant ownership and control of such, within this model of politics. This is the class-analysis element articulated in functional terms. The approach of systems-analysis, like that of the structuralists and derivationists, is to detail what is distinctly capitalist about the state (which functions variously as arena, arbiter, and advocate within environmental conflict) by specifying the ways in which the "state is functionally related to and dependent upon the capital accumulation process".²⁵ Moreover, a residual effect of this specification is the determination of just how autonomous the state is from the exigencies of accumulation (the relative autonomy argument).²⁶ This strategic relationship, between capital and the state, is specified by reference to the four general principles/structural mechanisms that are set out below. Offe's arguments are used as a general guide, and I draw upon other perspectives where I consider this to be appropriate. Lastly, it is important to stress that Offe is proceeding at the most "abstract-general" level – his theory of the capitalist state can be described in Weberian terms as an *ideal-type*.²⁷ The operationalisation of his model requires supplementary historical work. This intermediate level analysis is provided as contextual discussion within the case studies themselves. I now set out Offe's four principles that I will subsequently utilise in my analysis of environmental conflict.

5.3. Offe's Strategic Model

5.3.(i) Exclusion

The principle of *exclusion* or *private production* describes the division of labour that divorces the modern capitalist state from organising commodity production, and assigns this crucial task to the capitalist.²⁸ Offe states:

Political power is prohibited from organising material production according to its own 'political' criteria; property, whether in labour power or capital, is *private*. Hence, it is not political power, but private decisions that determine the concrete use of the means of production.²⁹

The state can thus be considered an entity that has its existence outside of the accumulation process.³⁰ Value-form theory advances a compelling explanation for this division:

²³ Offe's clearest exposition of the state is to be found in: "The Theory of the Capitalist State and the Problem of Policy Formation" In L. Lindberg, (ed.), 1975, *Stress and Contradiction in Modern Capitalism* D C Heath and Co, London, pp. 125-44.

²⁴ That is, in the absence of an intermediate level of language between the two polarities.

²⁵ C. Offe, "The Theory of the Capitalist State and the Problem of Policy Formation" p. 125.

²⁶ This is an example of Giddens' observation that social structures can either be enabling or constraining.

²⁷ C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, p. 120. On the concept of 'ideal-type' see; M. Weber, 1954, *Law in Economy and Society* Harvard University Press, Cambridge Ma, p. 9 and *passim*.

²⁸ H. Gulalp, 1987, "Capital Accumulation, Classes and the Relative Autonomy of the State" *Science and Society* Vol. 51, No. 20, p. 307.

²⁹ C. Offe, 1984, *Contradictions of the Welfare State* p. 120.

The value-form determined capitalist-economy is, in itself, indifferent to the existence of *particular* individuals, and is characterised by dynamic tendencies which periodically undermine the conditions of their existence. Rights of property and existence are therefore in themselves contradictory. This contradiction is transcended in the doubling of competitive society into the *state and civil society* – the reappearance of the economy given the emergence of the state.³¹

Williams refers to this as a “separation-in-unity” which is the expression of a “contradiction which cannot be resolved at the level of competitive society”.³² There is in this way a necessary split deriving out of capital accumulation. This separation is, however, constantly threatened by countervailing pressures on the state to secure the reproduction of capitalist relations, a factor that will be elaborated below.³³ The result of this, at the level of events, is that this division of labour is not always clear cut. Nevertheless, this functional separation acts as a powerful “selective mechanism” which tends to “screen out social policies that are incompatible with the private ownership of productive assets”.³⁴

The exclusion imperative is a necessary part of Offe’s model because it underpins the other three principles. It will, therefore, be necessary to deal with this mechanism within my analysis at the end of each study. I will set out to identify whether the state was involved in commodity production, and if so, whether there was pressure upon the state to divest itself of the ownership of production. Nevertheless, I do not envisage that it will be of *direct* explanatory value and will essentially function as a secondary mechanism that explains the presence of the following imperatives. Finally, the exclusion imperative, like all of the mechanisms posited here, operates tendentially and transfactually.

5.3.(ii) Dependency

The strength of the modern capitalist state depends in great part upon the strength of the economy. This fact rests upon two interconnected aspects. First, the material capacity of the state to make decisions, and act upon them, is predicated upon the resources it extracts from private accumulation:

Those who occupy positions of power in a capitalist state are in fact powerless *unless* the volume of the accumulation process allows them to derive (through taxation) the material resources necessary to promote *any* political ends.³⁵

Now the ability of the state to extract such material concessions will depend upon the performance of the economy itself. For when the economy slows down or declines then tax revenues will likewise fall. Conversely, when the economy is expanding the state is able to extract revenue from the private sector with less effort, and hence, with less resistance from

³⁰ C. Offe, “The Theory of the Capitalist State and the Problem of Policy Formation” p. 127.

³¹ M. Williams, 1993, “The Political-Economic Transformations in Central and Eastern Europe: A Tragic Neglect of Civil Society” *Working Paper Series 2/93* Graduate School of Business and Government Management, Victoria University of Wellington, p. 9.

³² *Ibid.*, p. 12.

³³ S. Clarke, (ed.), 1991, *The State Debate* Macmillan, London, p. 15.

³⁴ C. Barrow, 1993, *Critical Theories of the State* p. 100.

³⁵ C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, p. 120. See also; H. Gulalp, 1987, “Capital Accumulation, Classes and the Relative Autonomy of the State” *Science and Society* Vol. 51, No. 20, p. 299.

both business and the public at large.³⁶ The second aspect here is not part of Offe's schema; rather, it is a structuralist observation:³⁷

The state necessarily serves the interests of the capitalist class, because the state's legitimacy is dependent upon the economy.³⁸

It is certainly the case that people "view the state's personnel and policies as being responsible for their economic prosperity or lack thereof".³⁹ However, from a realist perspective the structuralist assertion that the state *necessarily* serves the interests of capital must be seen as overly deterministic. The actions of the state being more contingent than this, such that, because the state derives its legitimacy in great part from the performance of the economy, and because (on the basis of the exclusion principle) the state is functionally divorced from direct involvement in commodity production, the state will depend to a significant degree upon the performance of capital for its legitimacy. It is important, however, to not confuse such economic legitimation with the principles of legal (rights based) legitimacy and democratic legitimation discussed below.

5.3.(iii) Maintenance

The state's fiscal and legitimacy dependence upon the economy motivates the state in the performance of a crucial function, the imperative of maintaining private accumulation.⁴⁰ Following the exclusion principle there is pressure upon the state not to directly engage in accumulation. Yet the state depends upon accumulation, so the state responds to this by creating, sustaining and modifying the *conditions* in which capitalists engage in production for profit – "they must induce rather than command".⁴¹ The second underlying assumption or foundation is that "individual capitalists cannot themselves produce the general political or material conditions necessary for profitable business activities".⁴² These conditions may be split into two broad categories. First, there are *system-wide* needs – relatively enduring generic preconditions of commodity production, exchange and accumulation – that the state must satisfy. For example, Harvey notes that the state "in some form or another is a necessary condition for the production of values", for at the most basic level capitalist relations require the creation and enforcement of private property rights, a system of contractual exchange, and the guarantee of the quality of money in circulation.⁴³ Further conditions would include, *inter alia*, the existence of institutional frameworks for the regulation of conflict (including environmental conflict), military/diplomatic apparatuses to guarantee nationally based capital in foreign markets, and general material conditions such

³⁶ F. Block, 1977, "The Ruling Class Does Not Rule: Notes on the Marxist Theory of the State" *Socialist Revolution* No. 7, p. 15.

³⁷ It is also one held by the neo-pluralist Charles Lindblom. Cf. 1982, "The Market as Prison" *Journal of Politics* Vol. 44, pp. 324-36.

³⁸ A. Bridges, 1973, "Nicos Poulantzas and the Marxist Theory of the State" *Politics and Society* Vol. 2, pp. 161-90.

³⁹ C. Barrow, 1993, *Critical Theories of the State* pp. 58-60.

⁴⁰ C. Offe, "The Theory of the Capitalist State and the Problem of Policy Formation" p. 126.

⁴¹ C. Lindblom, 1977, *Politics and Markets* Basic Books, New York, p. 173.

⁴² C. Barrow, 1993, *Critical Theories of the State* p. 102.

⁴³ D. Harvey, 1982, *The Limits to Capital* Basil Blackwell, Oxford, pp. 18-19.

as the infrastructural needs of capital that cannot be produced directly or spontaneously by individual private businesses.⁴⁴

Secondly, in addition to these relatively generic requirements there are the more contingent conditions pertaining to *fractions* and/or *moments* of capital. For capital is not an "undifferentiated unity"; it is rather, "something which is heterogeneous and internally contradictory".⁴⁵ One may, for example, speak of sectoral needs (ie. industrial, finance, merchant, and landed forms of capital), geographical needs (local, regional, national, and increasingly transnational business groupings), or the requirements of various organisational forms (joint stock companies, small businesses, cooperatives, trusts, etc.).⁴⁶ The needs of these layers and fragments of capital are in constant transition and conflict such that the exigencies of particular *patterns* of accumulation establish crucial and specific impulses for state action.⁴⁷

The maintenance function can also be described as the need to overcome *threats* to the orderly pursuit of profitable capital accumulation. At a fundamental level, these threats may be understood as either internal contradictions of capitalism *per se* (such as ecologically exploitative relations, class antagonisms, etc.) or as externally sourced threats (disease, war, natural disasters, etc.). In political terms, they may manifest themselves as threats from competing fractions of capital, or from non-capitalists (or capitalists functioning in non-capitalist capacities) such as many environmental advocates. In sum, the sources and forms of threat to, as well as the preconditions of, capitalist relations are manifold. This necessarily raises the question as to how the state actually performs the maintenance task. Most particularly, just how the state manages the strategic challenge of articulating and enforcing the 'general interests' of capital. I will discuss this only in abstract terms.

Offe has asserted that "selective mechanisms" operate within the state apparatus to systematically deliver the policies and interventions necessary for general accumulation.⁴⁸

Barrow summarises Offe's argument:

First, to fulfil its maintenance function, *coordinative mechanisms* within the state apparatus must insure that state policies possess the requisite rationality, that is, that state policies will in fact induce optimum levels of investment and employment. State personnel must be able to recognise and select the general interests of the capitalist class amid the competition of special interests. Likewise, the state apparatus must be sufficient for the purpose of implementing and administering maintenance policies. Second, *repressive mechanisms* within the state apparatus must function simultaneously so as to filter out any non-capitalist policies which have not effectively been negated at the structural level.⁴⁹

What Offe is describing are general mechanisms that must be seen as operating transfactually and tendentially. In addition to the constraints established by countervailing

⁴⁴ Elmar Altvater (a derivationist) has discussed such needs in depth: 1973, "Notes on Some Problems of State Interventionism (I)" *Kapitalstate* No. 1, pp. 97-108; 1973, "Notes on Some Problems of State Interventionism (II)" *Kapitalstate* No. 2, pp. 76-83. See also; B. Jessop, 1977, "Recent Theories of the Capitalist State" *Cambridge Journal of Economics* Vol. 1, pp. 361-4.

⁴⁵ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* Blackwell Publ., Cambridge Ma, p. 65.

⁴⁶ *Ibid.*

⁴⁷ H. Gulalp, 1987, "Capital Accumulation, Classes and the Relative Autonomy of the State" *Science and Society* Vol. 51, No. 20, p. 311.

⁴⁸ C. Offe, "Structural Problems of the Capitalist State: Class Rule and the Political System. On the Selectiveness of the Political System" In C. Beyme, (ed.), 1974, *German Political Studies* Vol. 1, Sage Publications, Beverly Hills, pp. 39-40.

⁴⁹ C. Barrow, 1993, *Critical Theories of the State* p. 101.

social mechanisms and tendencies, these selective mechanisms will also fail at times because of internal contradictions and deficiencies. There will be crises of rationality (knowledge, coordination, deployment, etc.), and most especially there will be confusion as to the general, as opposed to particular, interests of capital. A crucial issue here will be the temporal question of the long, medium and short-term interests of capital. The upshot of this uncertainty and contestability is summed up by Jessop when he notes that the specific modes of intervention are “not unambiguously beneficial to capital”.⁵⁰

In addition to these ‘internal’ constraints, the ability of the modern state has been greatly circumscribed through wider transformations (both internal and external) in the mode of accumulation – viz. the shift from Fordist to ‘flexible’ accumulation noted at the beginning of this chapter. Harvey discusses this effect:

Arenas of conflict between the nation state and trans-national capital have, however, opened up, undermining the easy accommodation between big capital and big government so typical of the Fordist era. The state is now in a much more problematic position. It is called upon to regulate the activities of corporate capital in the national interest, to create a ‘good business climate’ to act as an inducement to trans-national and global finance capital, and to deter (by means other than exchange-controls) capital flight to greener and more profitable pastures.⁵¹

The potential power that business derives from this type of structural leverage is discussed later in this chapter.

An additional point, is the observation that the maintenance function actually brings the state into conflict with private capital. For in addition to the fact that the general interests of capital, as articulated by the state, may be in conflict with the narrow interests of fractions of capital or individual capitalists, there is a general tension which arises out of the mutual existence of the dependency, maintenance and exclusion principles. For:

[T]he ability to exercise these general interests through social policy requires that a certain amount of surplus value (taxes) be allocated for the maintenance of the state and state personnel. Taxes are an appropriation of value that is no longer available for capital investment or for private distribution as profits, interest, or rent. Consequently, on both fronts, individual capitalists confront the state as a source of constant annoyance that is parasitic, wasteful, and expropriative in its interventions.⁵²

Such inherent contradictions⁵³ lie at the heart of Offe’s depiction of the state in advanced capitalist society. Discussion now turns to the fourth principle, legitimation, which stands in a complex antagonistic-yet-synergetic relation with the maintenance function.

5.3.(iv) Legitimation

The state has to manage the consent of the populace, whilst maintaining the consent of the vested economic powers. Sailing between the Charybdis of social unrest ... and the Scylla of capital flight ...⁵⁴

⁵⁰ B. Jessop, “The Democratic State and the National Interests” In D. Coates and G. Johnston, (eds), 1983, *Socialist Arguments* Martin Robertson, Oxford, p. 91.

⁵¹ D. Harvey, 1989, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* Basil Blackwell, Oxford, p.170. Also: S. Picciotto, and H. Radice, 1973, “Capital and State in the World Economy” *Kapitalstate* No. 1, pp. 56-68; Holloway, J. 1994, “Global Capital and the Nation State” *Capital and Class* No. 52, Spring, pp. 23-49.

⁵² C. Barrow, 1993, *Critical Theories of the State* p. 102. For an in-depth discussion on this issue see; C. Offe, 1973, “The Abolition of Market Control and the Problem of Legitimacy (I)” *Kapitalstate* No. 1, pp. 109-16.

⁵³ Offe comprehends the notion of contradiction in a specific sense, where: “A contradiction is the tendency inherent within a specific mode of production to destroy those very preconditions on which its survival depends”. 1984, *Contradictions of the Welfare State* Heinemann, London, p. 132.

⁵⁴ M. Williams, and G. Reuten, 1993, “The Political-Economic Transformations in Central and Eastern Europe: A Tragic Neglect of Civil Society” *Working Paper Series 2/93* Graduate School of Business and Government Management, Victoria University of Wellington, p. 17.

The state's existence in a liberal capitalist democracy and its ability to pursue the maintenance function is dependent upon it reconciling that function with another crucial imperative: the need for legitimacy. Offe describes this dynamic:

In parliamentary-democratic political regimes, any group or party can win control over institutional state power only to the extent that it wins sufficient electoral support in general elections. This mechanism plays a key role in disguising the fact that the material resources of state power, and the ways in which these are used, primarily depend upon the revenues derived from the accumulation process, and not upon the voting preferences of the general electorate. In other words there is a dual determination of the power of the capitalist state: the institutional form of this state is determined through the rules of democratic and representative government, while the material content of state power is conditioned by the continuous requirements of the accumulation process.⁵⁵

There is here a structural disjuncture between the democratic *form* of the state and its capitalist *functions*. Of course the legitimacy imperative is not restricted to formal parliamentary-democratic modes of integration. The politics – democratic praxis – of advanced capitalist societies is characterised by fluid patterns of interest group activity (the undoubted insight and strength of pluralism). Networks of political influence are diverse and complex, formal and informal, ephemeral and relatively enduring. In response to political advocacy and struggle the state is forced to open itself to divergent interests, including non-capitalist interests, and it is obliged to make material concessions which may be immediately or partially subversive of capitalist accumulation. The dilemma here is that while such accommodation may well “constitute an inherent limit upon the ability of the state to facilitate capital accumulation”, it is also a *sine qua non* of any successful system-wide accumulation.⁵⁶ It thus acts as a set of boundary conditions upon the economy. The attendant question that arises is just how much of a constraint upon accumulation is the legitimation imperative? Before I deal with that question, however, I would like to consider a critical observation of Offe's on the subject of legitimation.

This is regarding the state's strategic response to the structural disjuncture between democratic form and economic function. There are two interconnected subsidiary mechanisms at work: First of all, the state deploys concealment mechanisms that enable the “adoption and implementation of maintenance policies outside the sphere of class struggle and special interest”.⁵⁷ Administrative secrecy is an example of this form; And secondly, the state mobilises *ideological* mechanisms in order to “convey the *image* of an organisation of power that pursues the common and general interests of society as a whole, allows equal access to power and is responsive to justified demands” [my emphasis].⁵⁸

The historical importance of the legitimacy function is given its fullest treatment in the crisis element of systems analysis – in particular, here, the notion of legitimation crisis.⁵⁹ In general terms, the theory forecast that advanced capitalist states would respond to widespread crises of accumulation (i.e. declining profitability) by undertaking extensive

⁵⁵ C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, p. 1

⁵⁶ C. Barrow, 1993, *Critical Theories of the State* p. 91. On this particular dilemma see; J. Hirsch, “The State Apparatus and Social Reproduction: Elements of a Theory of the Bourgeois State” In, J. Holloway, and S. Picciotto, (eds), 1978, *State and Capital: A Marxist Debate* Edward Arnold, London, pp. 57-107, specifically here p. 100.

⁵⁷ C. Barrow, 1993, *Critical Theories of the State* p. 101.

⁵⁸ C. Offe, In L. Lindberg, (ed.), 1975, *Stress and Contradiction in Modern Capitalism* D C Heath and Co., London, p. 127.

⁵⁹ Cf. J. Habermas, 1975, *Legitimation Crisis* Beacon Press, Boston.

agendas of structural adjustment aimed at retrenching the welfare state. Such programs would seek on the one hand to capitalise, or commodify, social expenses (ie. opening up a greater portion of social life to profitable accumulation), and on the other hand to reduce the fiscal burden that the state poses to private capital.⁶⁰ Offe and Habermas predicted such a roll-back of the welfare state would stimulate widespread opposition, particularly in the form of radicalised new social movements, thus constituting a general and acute crisis of popular support – a *legitimation* crisis. However, this prognosis is now seen as totally overblown on the evidence of the actual neo-liberal reform programs of the 1980s and 1990s. While these programs did indeed stimulate widespread opposition in many countries, they did not create the kind of fundamentally destabilising crisis conditions predicted by systems analysis.⁶¹

This evidence provokes two important correctives. The first of these is recourse to the realist methodology. Offe's principles are, as I have forcefully stated already, to be conceived as transfactual mechanisms. Furthermore, the totalising or holistic characteristics of the systems-analysts' models – those elements which generate strong predictions – cannot hold under realist terms. Despite these constraints, the principles do hold potential explanatory value, but such insights will only accrue if these abstract principles are more fully worked out on the basis of empirical investigation. Hence, the second corrective is a modified understanding of legitimation. It was noted in the previous footnote that systems analysts overemphasised the link between normative loyalty to the state and tangible resource allocations. This factor is accounted for in part by Williams and Reuten where they highlight that “the bourgeois state is grounded first in its positing of right as *law*, and second in its *legitimation* by the will of the subjects”.⁶² They expand on this later:

In addition to the specification of the content of *negative* Right through the framework of law, the legitimation of the bourgeois state requires a further *positive* specification of these rights – grounded in welfare policy and the institutions of civil society. This distinction is manifest in that between pure bourgeois equal opportunity for all to compete for all scarce use-values (including education, health care, housing etc.), on the one hand, and equal rights to concrete material and social well-being, on the other – formal equality of *process* confronts concrete equity of *outcome*.⁶³

This dual specification of Right – and hence legitimacy (for legitimacy can be equated with ‘rightfulness’) – offers a convincing (albeit partial) explanation as to why a legitimation crisis has not arisen despite the fiscal austerity measures of recent neo-liberal reforms. For neo-liberal reformers have complemented their attack upon positive rights with a greater

⁶⁰ The neo-liberal agendas seek to restore the delicate balance between accumulation and legitimation by converting unproductive social expenses to productive social capital. J. O'Connor, 1973, *The Fiscal Crisis of the State* St. Martin's Press, New York, p. 221.

⁶¹ Clyde Barrow suggests four broad reasons for this: First, the neo-liberal reforms have been relatively successful in their aims of capitalising and rationalising social expenses; Secondly, many of the production costs which were socialised in Western nations following WWII, were motivated by political reasons rather than because of any functional need to subsidise capital accumulation; Thirdly, because systems analysts overemphasised the link between normative loyalty to the state and tangible resource allocations. Most notably, “crisis theory failed dramatically in not being able to anticipate the way that neoconservatives have redefined the rules of legitimacy by invoking symbolic myths that explicitly discount the state's responsibility for economic growth, individual well-being, and distributive justice”; And fourthly, that such a prediction of crisis necessarily presupposes the existence of a closed-system. C. Barrow, 1993, *Critical Theories of the State* pp. 121-2.

⁶² M. Williams, and G. Reuten, 1993, “The Political-Economic Transformations in Central and Eastern Europe: A Tragic Neglect of Civil Society” p. 10.

⁶³ *Ibid.*, p. 16.

ideological emphasis upon negative right (the liberal equation of bourgeois equality), and by the strategy described by Barrow above, of discounting the state's responsibility for economic growth, individual well-being, and distributive justice.⁶⁴

While I reject the strong crisis component of systems analysis (so that legitimation crises *may* rather than *will* happen at particular conjunctures), the process of legitimation is still considered to be a crucial functional dynamic affecting state action. This process will operate complexly – incorporating the wider understanding of legitimacy and dual specification of Right – and like the other mechanisms it will, in all likelihood, be of varied and sometimes contradictory effect across the *matrix* of historical state forms and functions.

5.3.(v) *Reconciling the Principles: Contradiction, Crisis, and Contingency*

While I have sought to modify elements of Offe's framework, the core dynamics remain. It is critical to acknowledge that none of these principles pre-exist the other, for as I suggested earlier they stand as a complex of synergetic-yet-antagonistic mechanisms and tendencies, mutually reinforcing yet also internally and externally contradictory, and constantly transforming. But throughout this complex there is a strong sense of the primacy of accumulation and the political power that necessarily accrues from ownership and control of commodity production.

This is also a model that recognises the contingency of social relations, which incorporates, as Jessop puts it, "economic determination without determinism".⁶⁵ Thus, for example, it is possible to see the political agenda is limited in so far as certain issues are viewed as peripheral or beyond the sphere of state action. There exists a set of "institutionalised 'selection rules' that filter out the more radical demands" of reformist interests and fundamentally shape the nature of policy discussion,⁶⁶ – where those seeking social change accommodate their proposals to the limits of adaptability of the prevailing business order.⁶⁷ Strategies are formed with the tacit recognition that there exist structural limitations and that the rules of the game are overwhelmingly influenced by the exigencies of capital accumulation.

These principles are utilised in my analysis of the two case studies of environmental conflict in two broad ways: First, through direct application, where I endeavour to identify how these dynamics operate historically. Because they are held to operate transfactually it may be necessary to infer their exercise. This will warrant supplementary discussion about the economic and political circumstances that surround the individual conflicts; Secondly, these structural principles will be of indirect value in that they underpin the more specific, and hopefully empirically fertile, mechanisms posited in the next section. For example, the function of property rights can be grounded in both the fundamental exigencies of commodity circulation and in the maintenance function of the state.

⁶⁴ David Harvey covers this ground in his penetrating study of the economic and cultural transformation – including the attendant normative/ideological shift – from 'Fordist' to 'flexible' modes of accumulation. 1989, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* Basil Blackwell, Oxford, Ch's 9 and 10.

⁶⁵ B. Jessop, 1990, *State Theory: Putting Capitalist States in their Place* Polity Press, Cambridge, p. 81.

⁶⁶ B. Head, 1984, "Recent Theories" p. 41.

⁶⁷ C. Lindblom, 1977, *Politics and Markets* p. 210.

5.4. Mechanisms of Business Dominance

In general, when one looks at the current conditions and trends in environmental politics, one sees evidence for a systematic imbalance of power between industry and environmentalists – one that is likely to continue and perhaps even worsen. Environmental groups have all the disadvantages in political and economic power that afflict most public interests groups. Typically, they have limited staff, little money, and face an uphill battle to organise citizens around issues whose impacts are so diffuse. In contrast, industry organisations are well staffed, amply funded, and have a direct financial interests in these issues.⁶⁸

In this passage, Amy is drawing attention to structures of business domination within the realm of environmental conflict. Mechanisms – in this case, unequal resources and modes of collective action – function to systematically privilege business interests relative to those of environmentalists. In this final section I focus upon a series of such causal mechanisms, including those noted by Amy. They are; (i) the ability of business to exert sanctions upon society, (ii) the privileging of private property rights, (iii) disparate resources, (iv) the ability to define the terms of discourse, and, (v) modes of collective action. These mechanisms are both causes and manifestations of business power. Needless to say, this is not an exhaustive list and there will be other sources of domination. I have chosen these particular forms because they have been either singularly or conjointly identified as significant causal features within the existing literature on environmental conflict (see 1.4.). Each mechanism is at once vertically embedded within the wider structural dynamics theorised in the previous section, and laterally connected with some, if not all, of the other mechanisms. What follows is an argument about structural advantage.

5.4.(i) *The Business Sanction*

Central to the argument in the previous section was the recognition, first, that society is dependent upon resources created in the process of accumulation, and secondly, that the task of organising this process is almost exclusively the domain of the private capitalist. Capitalists thus inhabit a crucial structural position. The economic security of everybody rests in their hands, and in this regard they can be said to perform “public functions”.⁶⁹ This structural role, and the state’s attendant relation (described by the exclusion, dependency and maintenance imperatives), underpin a crucial mechanism of business power – the ability of business to inflict punishment upon society when business interests are threatened.

The business sanction is the strategic leverage that fractions of capital derive from the potential cessation, translocation, reduction, or even withholding of future investment and production, within a given geo-historical context. This mechanism operates on a continuum from overt and deliberate action to subconscious structures of in-action or constraint. Like military power, the business sanction is premised upon the willingness and capacity of capitalists to *act* when their interests are threatened. There has, of course, to be a real *possibility* that sanctions will be applied. But while business power ultimately flows from this possibility, its strategic articulation may take the form of direct *threats* of action such as,

⁶⁸ D. Amy, 1987, *The Politics of Environmental Mediation* Columbia University Press, New York, p. 205.

⁶⁹ C. Lindblom, 1977, *Politics and Markets* p. 172. Also: C. Lindblom, 1982, “The Market as Prison” *Journal of Politics* Vol.44, p. 327.

for example, "plant shutdowns, disinvestment or capital strikes".⁷⁰ One particular form of threat commonly deployed by business in environmental conflict is that of 'job blackmail', whereby businesses 'warn' communities of the job losses that would potentially ensue if the demands or interests of environmentalists were to be met thus establishing unwanted costs for capital.⁷¹ However, in many instances this mechanism will operate in a more subtle manner. Businesses will "...predict, not threaten, that adverse consequences will follow a refusal of their demands".⁷² Finally, the mechanism of business sanctions may function independently of conspiracy or intention.⁷³ Lindblom describes this process:

[A]cross the entire array of institutional changes that businessmen themselves do not like, an automatic punishing recoil works to repress change. In that broad category, change — and often even the threat of change — adversely affects performance, hence adversely affects employment.

Anticipations of change are enough to trigger unemployment.⁷⁴

At all levels and modes of operation this 'punishing recoil' is dependent upon a crucial understanding, namely, the predisposition of both public officials and many private citizens to the needs of capital.⁷⁵ These are the same assumptions that undergird the day-to-day functioning of the maintenance dynamic — a consensus between business and government about the needs of accumulation.⁷⁶ Lindblom calls these:

[T]he grand issues of politico-economic organisation: private enterprise, a high degree of corporate autonomy, protection of the status quo on the distribution of income and wealth, close consultation between business and government, and restrictions of union demands [and other interest groups considered a threat] to those consistent with business profitability...⁷⁷

Elsewhere he refers to an "unspoken deference of administrators, legislatures and the courts to the needs of business".⁷⁸ The upshot of this is that, subject to such pervasive constraints, the scope of any environmental initiative may be severely limited if the program is considered to pose a potential threat to the conditions of accumulation.⁷⁹

Spatial considerations are very important here. Business sanctions occur in *response* to various levels of threat (system-wide or particular), and they function *through* the spatial

⁷⁰T. Schrecker, 1990, "Resisting Environmental Regulation: The Cryptic Pattern of Business-Government Relations" in R. Paehlke and D. Torgerson (eds), *Managing Leviathan* Broadview Press, Ontario, p. 168.

⁷¹An in-depth investigation of this phenomenon is contained in R. Kazis and R. Grossman, 1982, *Fear at Work: Job Blackmail, Labour and the Environment* Pilgrim Press, New York. Schrecker also provides examples of this mechanism, 1990, "Resisting Environmental Regulation" pp. 168-9.

⁷²C. Lindblom, 1977, *Politics and Markets* p. 185.

⁷³C. Lindblom, 1982, "The Market as Prison" p. 326.

⁷⁴*Ibid.*, p. 328.

⁷⁵C. Stone, 1980, "Systemic Power in Community Decision Making" *American Political Science Review* Vol. 74, No. 4, p. 984.

⁷⁶The development of this consensus can be seen to follow from the constant feedback from business about their needs, some of which is through explicit advocacy such as that of business organisations, but much of which is through the 'recoil' itself. Brian Roper observed this process in the New Zealand context: "For business managers do not merely register a vote of confidence in or dissatisfaction with the government once every three years: they are daily making decisions as to whether or not their companies should invest in the productive base of the New Zealand economy, decisions which ultimately determine the general rate of productivity, output and employment growth". 1990, "The Policy Making of Business Organisations: From Keynesianism to Neoclassicism" Paper presented to the New Zealand Political Studies Association Annual Conference, University of Otago, Dunedin, pp. 9-10. The most in-depth investigation of this relationship in recent times is Roper's PhD thesis: 1990, "The Dynamics of Capital in Crisis: A Critical Analysis of New Zealand's Capitalist Class, from 1974 to 1987" PhD Thesis, Griffith University, Brisbane.

⁷⁷C. Lindblom, 1977, *Politics and Markets* p. 205.

⁷⁸*Ibid.*, p. 179.

⁷⁹Note that environmental initiatives will not necessarily pose such a threat, indeed they may at times facilitate further accumulation, or more complexly (as shall be observed in the second case study) they may do both simultaneously.

transfer of capital across varying geographical scales (local, national, global). Indeed, the business sanction is particularly effective in environmental conflict because of, on the one hand, the *relative* mobility of capital⁸⁰, and on the other hand, the *absolute* immobility of ecosystems and *limited* mobility of human communities.⁸¹ This is especially the case where tactics such as 'job blackmail' stimulate internecine conflict between members of local communities – where jobs and environmental quality are sold as a zero-sum trade-off.⁸²

Lastly, following Blowers (whose work I referred to early on in 1.2.(iii)), I would like to note that it is expected that the strategic power of business (sanctions etc.) will fluctuate over time due to the relative strength of the economy. When the wider economy is strong with high levels of wealth creation and employment, then the potential influence to be gained through the exercise of individual sanctions will in all likelihood be lower.⁸³

In summary, the business sanction is seen as a crucial source of influence, and it is indubitably the case that unlike business, the dissatisfactions of other groups in society "do

⁸⁰ The power that business derives from its mobility – especially the power that transnational capital holds over individual nation states – has been of great interests to academics. Cf. D. Andrews, 1994, "Capital Mobility and State Autonomy: Toward a Structural Theory of International Monetary Relations" *International Studies Quarterly* Vol. 38, pp. 193-218; S. Picciotto, and H. Radice, 1973, "Capital and State in the World Economy" *Kapitalstate* No. 1, pp. 56-68; Holloway, J. 1994, "Global Capital and the Nation State" *Capital and Class* No. 52, Spring, pp. 23-49.

⁸¹ Ted Schrecker has made a similar point: 1990, "Resisting Environmental Regulation: The Cryptic Pattern of Business-Government Relations" in R. Paehlke and D. Torgerson (eds), *Managing Leviathan* Broadview Press, Ontario, p. 186.

⁸² The causal efficacy of the business sanction has, however, been questioned by neo-classical pluralists such as Vogel in the context of a general critique of the 'structuralist' elements of neo-pluralism. It is appropriate to deal (albeit briefly) with these criticisms here. Vogel has put forward the following arguments: That capital strikes hurt business in much the same way that labour strikes hurt labour; That not all capital is mobile; That governments/states are not necessarily adverse to policies or decisions which increase unemployment; And that it is wrong to reify business – the government may have to provide inducements to capital in general, but not to any particular fraction of capital. (D. Vogel, 1987, "Political Science and the Study of Corporate Power: A Dissent from the New Conventional Wisdom" *British Journal of Political Science* Vol. 17, pp. 393-5. See also: 1987, "The New Political Science of Corporate Power" *The Public Interest* No. 87, pp. 63-79; 1983, "The Power of Business in America: A Reappraisal" *British Journal of Political Science* Vol. XIII, pp. 19-43.) My rejoinder to Vogel's argument is as follows: First, that tactics such as capital strikes will indeed incur some costs to business (this will vary). However, like labour strikes such short term losses are strategically necessary for long term gain; Secondly, that while not all capital is equally mobile, it is, rather, an issue of *relative* mobility and liquidity. I grant, however, that Vogel's caveat is an important one in individual cases. I would add here that with regard to the less liquid forms of investment – say, for example, a large manufacturing plant that must be located near to some strategic resource – business threats may be more credible in the planning stages (although not necessarily so, consider for example the ongoing leverage exercised by Comalco in bargaining with the New Zealand Government over electricity supplies to its Bluff aluminium smelter (See N. Peat, 1994, *Manapouri Saved! New Zealand's First Great Conservation Success Story: Integrating nature conservation with hydro-electric development of Lakes Manapouri and Te Anau, Fiordland National Park* Longacre Press, Dunedin.); Thirdly, that while it is true that New-Right governments have placed less emphasis upon the employment effects of policies and decisions, the business sanction involves the withholding of wealth creating investment – a matter of universal interest to such administrations. Furthermore, many environmental conflicts are played out at the level of local or regional politics where questions of employment are nearly always of considerable interest and consequence; And finally, while the state may at times discriminate against individual fractions of capital, the argument here is a tendential one.

⁸³ A. Blowers, 1983, "Master of Fate or Victim of Circumstance - The Exercise of Corporate Power in Environmental Policy-Making" *Policy and Politics* Vol. 11, No. 4, pp. 393-415; 1984, *Something in the Air: Corporate Powers and the Environment* Harper and Row, London; Blowers, A. and Pepper, D. (eds), 1987, *Nuclear Power in Crisis: Politics and Planning for the Nuclear State* Nichols Publishing Co., New York, pp. 1-35. An extensive empirical study with similar conclusions is; M. Hill, S. Aaronovitch, and D. Baldock, 1989, "Non-decision Making in Pollution Control in Britain: Nitrate Pollution, the EEC Drinking Water Directive and Agriculture" *Policy and Politics* Vol. 17, No. 3.

not result in disincentives and reduced performance that impose a broad, severe and obvious penalty throughout society".⁸⁴

5.4.(ii) *The Double Privilege of Private Property Ownership*

The concept of property is a protean one, encompassing a multitude of historical forms and possibilities.⁸⁵ To speak of property in anything but the most inchoate and abstract terms (ie. "as a system of rules governing access to and control of resources"⁸⁶) is to refer to a type of social relation which is the result of historically specific and contingent forces. Hence my concern here is with the system of rules that is *private* property within advanced capitalist society. I argue below that this particular form of property regime confers a double strategic privilege upon its owners (and thus capitalists who are by definition accumulators of private wealth) through, on the one hand, the internal logic of the private right,⁸⁷ and on the other hand, the external structural political-economic bias which creates, sustains and legitimates this type of property rule. I deal with these aspects in turn

The most basic precept underpinning a system of private property is that each resource belongs to some individual. Jeremy Waldron (a liberal theorist) describes the concomitant notions of *private property* and *ownership* as thus:

In a private property system, a rule is laid down that, in the case of each object, the individual name that is attached to that object is to determine how that object shall be used and by whom. His decision is to be upheld by the society as final. When something like the idea of a name/object correlation is used in this way as a basis for solving the problem of allocation, we may describe each such correlation as expressing the idea of *ownership* or *belonging*.⁸⁸

And in later discussion he adds: "The owner of an object is the person who has been put in that *privileged position*" [my emphasis].⁸⁹ This description is, of course, an ideal typical one. Any historical example of private ownership will express a *sui generis* bundle of rights, powers, liberties and duties. Nevertheless, it reveals the essence of private property. At its heart there is a privileged relation of power (power₂) over the resource itself, and over the rest of society. In the context of environmental conflict this constitutes both a social and a socio-ecological privilege.⁹⁰

The second aspect is the system-wide privileging of this nuclear form. It is a truism that all forms of property are political.⁹¹ Take C.B. Macpherson's observation that "what distinguishes property from mere momentary possession is that property is a claim that will be enforced by society or the state, by custom or convention or law".⁹² The enforcement element necessarily implies some potential exercise of *authority* – the political. But this

⁸⁴ C. Lindblom, 1982, "The Market as Prison" p. 328.

⁸⁵ For as Marx rightly observed: "In each historical epoch property has developed differently and under a set of entirely different social relations". In D. Harvey, 1982, *The Limits to Capital* p. 353

⁸⁶ J. Waldron, 1988, *The Right to Private Property* Clarendon Press, Oxford, p. 31.

⁸⁷ Note here that I will not seek to avoid the liberal discourse of rights. I am not so much considering the legitimating philosophies of private property, rather my concern lies with the substantive socio-ecological implications of this form.

⁸⁸ J. Waldron, 1988, *The Right to Private Property* p. 39.

⁸⁹ *Ibid.*, p. 47.

⁹⁰ It is conceivable that there may be incorporeal forms of private property that will not apply to portions of the physical environment.

⁹¹ Certainly from Rousseau onwards.

⁹² C. Macpherson, (ed.), 1978, *Property: Mainstream and Critical Positions* University of Toronto Press, Toronto, p. 3.

does not in itself establish or explain the normative connection that exists between the state and the specific form *private* property in advanced capitalist society. The essence of this particular connection lies, at least in the first instance, with the fulcrum and mainspring of capitalism – commodity relations. The possibility of commodity production and exchange requires ownership. As Lindblom notes, “property is one of the foundations of market exchange, since people cannot exchange assets or money for assets or services if they do not ‘own’ the assets and money”.⁹³ Capitalism is a system where individuals acquire, transform, exploit, and alienate, their own private property.

Production and exchange in the market economy thus require the operation of a particular property rule.⁹⁴ A strong private property regime is the *sine qua non* for capital accumulation, and involves the legal entrenchment, ideological support, and physical protection of private property rights.⁹⁵ Such seemingly impregnable rights have important ramifications for environmental disputes such as those investigated in the following studies. Indeed, as Knetsch notes, resource disputes can be seen to be “about the extent to which a right is protected or accorded preference over another entitlement.”⁹⁶ Consequently, to acknowledge the existence of a structural bias which favours private property rights over other forms of property or non-property relations is to recognise that environmental advocates will be disadvantaged when they challenge the rights of business to degrade, destroy, or otherwise misuse, and exclude others from use of natural resources in their private ownership; “to use or dispose of their property as they see fit”.⁹⁷ Or alternatively, to question the export of negative environmental ‘externalities’ from the productive activities of business into surrounding environments not held under private ownership.

The spatial dimension of private property is worthy of note. In the earlier section on commodification, I referred to Harvey’s observation that such a process was predicated upon the atomistic “Cartesian-Newtonian-Lockean and in some respects ‘anti-ecological’ ontology”.⁹⁸ This point is relevant here also. Most particularly, with property rights over land there is always the question of boundedness – the imposition of fixed borders around discrete portions of the globe, which, more often than not, have no regard for the form and function of open, and highly integrated, natural systems. Another issue of space and the attribution of rights, is that of the multiple-valuations/uses which apply to the environment.

⁹³ C. Lindblom, 1977, *Politics and Markets* p. 164.

⁹⁴ T. Schrecker, 1990, “Resisting Environmental Regulation” p. 186.

⁹⁵ P. Cerny, 1990, *The Changing Architecture of Politics: Structure, Agency, and the Future of the State* Sage Publications, London, p. 50. It is important to make the linkage here with the *maintenance function* discussed above. The state’s function in establishing and protecting (including legitimating) private property rights is one of the most direct connections that it has with capitalist economic relations. The significance of this function cannot be understated. For example, in the context of environmental conflict Peter Victor notes: “Some adopt the position that the state is so intimately involved with the interests of private property that it cannot be relied upon to protect the environment if such protection is incompatible with the interests of private property”. in W. Leiss (ed.), 1979, *Ecology Versus Politics in Canada* University of Toronto Press, Toronto, p. 48.

⁹⁶ J. Knetsch, 1983, *Property Rights and Compensation: Compulsory Acquisition and Other Losses* Butterworths, Canada, p. 2. See also: G. Calabresi and A. Melamed, 1972, “Property Rules, Liability Rules, and Inalienability: One View of the Cathedral” *Harvard Law Review* Vol. 85, No. 6, pp. 1089-1128.

⁹⁷ R. Benjamin and S. Elkin (eds), 1985, *The Democratic State* University Press of Kansas, Kansas, p. 38. Once again, this is a *tendential* connection, as it is entirely feasible that there will be instances where environmental advocates hold private rights over areas threatened by external forces.

⁹⁸ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* p. 153.

The private property rights that protect business interests over these 'discrete portions' serve to protect some monopoly uses or values (ultimately exchange-value) at the expense of other potential values (a tension which underpins much environmental conflict). There are, of course, innumerable mechanisms devoted to mitigating this tension (eg. planning rules and resource laws which do attenuate the freedoms of owners). But in a system that substantively privileges the private rights of capital, there will always be a bias that excludes alternative non-commodified uses and values.⁹⁹

Finally, the above definition of the private property right centred upon the association and location of the right with an *individual* person. This begs the question as to how the property of business can be considered private property when more than one person is involved. Macpherson deals with this specific issue:

In the case of private property the right may, of course, be held by an artificial person, that is, by a corporation or unincorporated grouping created or recognised by the state as having the same (or similar) property rights as a natural individual. The property which such a group has is the right to the use and benefit, and the right to exclude non-members from the use and benefit, of the things to which the group has a legal title. Corporate property is an extension of individual private property.¹⁰⁰

This is a very important factor when considering the property holdings of business within the following studies. I now turn to the issue of resources.

5.4.(iii) *The Unequal Distribution of Resources*

Freedom remains a hollow abstraction unless it is accompanied by the material capacity to exercise free choice.¹⁰¹

The generic definition of power₁ was earlier equated with the *transformative capacity* inherent in action. Such a capacity, whether intrinsic or extrinsic to the individual, is predicated upon the existence of resources. It is thus possible to surmise that resources, their forms and distributions, lie at the heart of most, if not all, power relations, and, ergo, that a relation of dominance is most often a relation of unequal resources (either qualitative and/or quantitative).¹⁰² In the case of actual social relations, however, the question of resources will be complex, and there will be other causal mechanisms at play. The issue here is therefore what *form* of resource advantage business takes into environmental conflict. Most particularly, what type of resource advantage specifically accrues as a function of the ownership and control of the means of production in advanced capitalist society.

Charles Lindblom's discussion of the strategic resources of business is accurate here: No other group of citizens can compare with businessmen, even roughly, in effectiveness in the polyarchal process. How so? Because, unlike any other group of citizens, they can draw on the resources they command as 'public officials' to support their activities in polyarchal politics.

And later;

All citizen groups compete in politics with the use of their members' own incomes and energies. Except for businessmen. They enjoy a triple advantage: extraordinary sources of funds, organisations at the ready, and special access to government.¹⁰³

⁹⁹ Control of access is an extremely important issue here.

¹⁰⁰ C. Macpherson, (ed.), 1978, *Property* p. 5.

¹⁰¹ N. Low, 1991, *Planning, Politics and the State: Political Foundations of Planning Thought* Unwin-Hyman, London, p. 6.

¹⁰² Anthony Giddens makes this point when he notes that resources function as the "media through which power is exercised, and structures of domination reproduced". 1979, *Central Problems in Social Theory* Macmillan, London, p. 91.

¹⁰³ C. Lindblom, 1977, *Politics and Markets* pp. 193-4.

I will deal with these three advantages in turn.

First, that businesses possess superior financial resources seems obvious. The primary concern of business is the accumulation of wealth. The strategic value of these financial resources cannot be overstated, for they can be readily and effectively mobilised toward political goals. For example, corporate resources are directed towards the funding of political campaigns, to "lobbying and other forms of communication with governmental officials, to political and institutional advertising in the mass media, to educational material ... and to litigation designed to influence government policy or its enforcement".¹⁰⁴ This is in stark contrast with the financial resources available to environmental groups who do not accumulate wealth as a primary goal – as an end in itself. For these groups the procurement of financial resources is purely to provide the organisation with the *means* to advocate for environmental values. As such, they are, on the whole, dependent upon the voluntary financial contributions of their individual members to fund themselves in the pursuit of this goal.¹⁰⁵

Secondly, the extant organisational resources of the business unit are of great importance as a political resource:

Citizens can organise themselves if they are willing to pay the price in time, energy, and money. But the corporation is already there as an organisation. Organised for other purposes, it is at hand, ready to be used by its executives for political activity ranging from discussions with civil servants to financial support of political parties. Its personnel are available. Political action does not require the tedious or frenzied energies of organisers. And the political workers in a corporation are not volunteers of dubious reliability but paid employees.¹⁰⁶

In the previous footnote I referred to the Steel et al. study of lobby groups in US forest politics. What that study fails to reveal, however, is that each separate business enterprise is able to act as an interest group, whereas individual citizens typically cannot do so.¹⁰⁷

Thirdly, as Schrecker observes in his analysis of environmental conflict, the resources of business "are not just quantitatively superior to those of other parties to environmental conflicts, they are qualitatively superior as well".¹⁰⁸ The most notable qualitative distinction is the ease of access to key decision-making arenas available to business (this means of influence derives not only from the material resources of business for advocacy, but also from the strategic relationship outlined in 5.3.(iii)). Indeed:

Because of their privileged position in government and politics, they are already known to government officials, already attentively listened to, already engaged in negotiation. When they

¹⁰⁴ Ibid., p. 194.

¹⁰⁵ The Steel, Pierce and Lovrich study of political struggles over forest policy in the Pacific Northwest (USA) is relevant here. The study examined the resources available to environmental (n=126), passive recreation (n=28), intensive recreation (n=142) and industry-support (n=32), groups and correlated this with the types of strategies used. They found that the environmental groups surveyed had a mean budget of \$374,000 as opposed to \$924,000 for industry groups. The sources of income also differed greatly, with environmental groups on average 57 per cent dependent upon membership dues, compared to 35 per cent for industry groups. B. Steel, J. Pierce, and N. Lovrich, 1996, "Resources and Strategies of Interest Groups and Industry Representatives Involved in Federal Forest Policy" *The Social Science Journal* Vol. 33, No. 4, pp. 409-10. I would qualify this, however, by noting that these figures do not take into account the potential strategic resources available to these groups – with business groups having access to huge reserves when needed. In the New Zealand context, the annual reports of the Royal Forest and Bird Protection Society (the second largest environmental organisation after Greenpeace) reveal a much higher dependency upon individual subscriptions and contributions (78 per cent in 1988 – during the period of the following studies). Royal Forest and Bird Protection Society of New Zealand Inc., 1988, *Annual Report* Forest and Bird, Wellington, p. 10.

¹⁰⁶ C. Lindblom, 1977, *Politics and Markets* p. 196.

¹⁰⁷ Ibid., p. 197.

¹⁰⁸ T. Schrecker, 1990, "Resisting Environmental Regulation" p. 186.

reappear in the role of ordinary citizens engaging in polyarchal politics, neither they nor government officials will ordinarily note the difference. They will enjoy all the advantage of their privileged role, an advantage not available to their citizen competitors in interest-group activity.¹⁰⁹

These avenues of communication and influence are also underpinned by the consanguinity of business and government elites, whether in terms of social class, education, or ideological disposition. This connection has in recent decades, been exacerbated by 'revolving door' employment practices, seeing a higher degree of mobility between the public and private sectors, and by a blurring of the institutional boundaries between the two (eg. state owned enterprises).

It must be acknowledged however (in the New Zealand context), that environmentalists have in recent decades gained access to policy arenas, and that the influence of some key environmentalists/environmental groups has been significant.¹¹⁰ But this episodic and compartmentalised influence has by no means been comparable to the day-to-day influence of business across the whole spectrum of state activity.

The resource issues discussed here are connected with all of the mechanisms posited in this section – there is a catch-all element here. Nevertheless the investigation of business resources vis-à-vis the resources of environmental and other groups in resource conflict, will be a crucial element of analysis in the following studies. Finally, much of the above discussion about business is framed in the context of corporate capital, and it must be acknowledged here that petit-bourgeois forms of enterprise will not necessarily, or even in any likelihood, have recourse to these advantages.

5.4.(iv) *The Power to Define Reality and the Distortion of Communicative Processes*

Offe has stated that business is able to "define reality". It is useful to take this statement in context:

Capitalists and conservative political elites 'exaggerate' the harm imposed upon them by welfare state arrangements. To be sure, in the political game they have good tactical reasons to make the welfare state burden appear more intolerable than it 'really' is. The question boils down then to what we mean by – and how we measure – 'reality' in this context. In answering this question, we will have to keep in mind that the power position of private investors includes the power to *define* reality. That is to say, whatever they *consider* an intolerable burden in fact *is* an intolerable burden which will in fact lead to a declining propensity to invest, at least as long as they can expect to effectively reduce welfare-state-related costs by applying such economic sanctions. The debate about whether or not the welfare state is 'really' squeezing profits is thus purely academic because investors are in a position to create the reality – and the effects – of 'profit squeeze'.¹¹¹

While Offe is immediately concerned with capital's response to the welfare state, the mechanism at work here is equally relevant to the environmental domain. For example, in discussing the phenomenon of job blackmail, Schrecker notes that: "realism in this context is ... defined in terms of the realities of the company president".¹¹² By this he means that business is able to establish the terms of discourse – in this case that environmental regulation will result in job losses, not because of any necessarily consequent critical decline

¹⁰⁹ C. Lindblom, 1977, *Politics and Markets* p. 197.

¹¹⁰ For example, within the process of the reform of environmental administration and legislation throughout the 1980s and early 1990s. See: T. Bührs, and R. Bartlett, 1993, *Environmental Policy in New Zealand: The Politics of Clean and Green?* Oxford University Press, Auckland, Chapters 5 and 6; P. Ali Memon, 1993, *Keeping New Zealand Green: Recent Environmental Reforms* University of Otago Press, Dunedin.

¹¹¹ C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, pp. 150-1.

¹¹² T. Schrecker, 1990, "Resisting Environmental Regulation" p. 186.

in profitability (objective function), but because the company president has said it will be so (on the basis of wider strategic interests).

This particular mechanism is, however, dependent upon the ability of business to actively create the outcome it has foretold. But the power of business to control the mode and content of discourse is not solely dependent upon this praxiological capacity, business is also able to systematically distort the communicative process *per se*.

Each of the structural mechanisms discussed in this section, in the previous section, and in the earlier disquisition on value-form, can be seen to affect the discourses of environmental conflict in one way or another (ie. the dominant language of monetised values¹¹³, the suppression or promotion of a specific discourse, and the establishment of boundaries upon discourse). Attention must be given to this in analysing the case studies. But I want to supplement those elements here by concentrating upon the ways that business actively controls the content of discourse – viz. its ability to withhold, distort and disseminate *information* – for these factors are also fundamental in establishing the ‘reality’ of a particular discourse. John Forester summarises here: “By informing or mis-informing citizens, power works through the management of comprehension or obfuscation; of trust or false assurance; of consent, or manipulated agreement; and of knowledge, or misrepresentation ...”.¹¹⁴ Once again, the exercise of such power is both conscious and unconscious, ad hoc and systematic.

However, while neither volition nor conspiracy are necessary prerequisites for the exercise of such widespread influence, corporate enterprises have gone to remarkable lengths to deliberately control environmental discourse. Sharon Beder has investigated what she labels the “new corporate activism” – the utilisation of sophisticated political strategies and techniques by business organisations in a systematic, pro-active and sustained attempt to combat environmentalism.¹¹⁵ In Table 5.1. I list some strategies noted by Beder that may be used by business in New Zealand, and to provide the kind of concrete examples that may be evident in the following studies:

Table 5.1. Strategies of Corporate Activism

- (i) **The use of punitive lawsuits to deter environmental advocacy**
This has become a widespread stratagem throughout western democracies. Like other business tactics the *threat* of litigation has proven an effective deterrent (consider the issue of costs in the Fast Ferries case discussed in Chapter One).¹¹⁶
- (ii) **Conservative think tanks.**¹¹⁷
Think Tanks have played a fundamental part in the ascendancy of New-Right politics. The environment has not escaped the attention of these well resourced institutions. Take, for example, the recent publication *Conservation Strategies for New Zealand* by Professor Peter Hartley, then Director of the Tasman Institute – an Australian right wing think tank – for the New Zealand

¹¹³ Money as the language of social power as well as form of social power. D. Harvey, 1996, *Justice, Nature and the Geography of Difference* p. 151.

¹¹⁴ J. Forester, 1989, *Planning in the Face of Power* University of California Press, Berkeley, p. 45.

¹¹⁵ S. Beder, 1997, *Global Spin: The Corporate Assault on the Environment* Scribe Publications, Melbourne, p. 21.

¹¹⁶ *Ibid.*, Ch. 4. Beder provides numerous examples of this tactic in the US, Canada, UK, and Australia. It is not always an effective tactic – take, for example, the highly publicised McDonalds suit against two protesters in Britain which resulted in a great deal of negative publicity for the company.

¹¹⁷ *Ibid.*, Ch’s 5 and 6. See also: R. Desai, 1994, “Second-Hand Dealers in Ideas: Think-Tanks and Thatcherite Hegemony” *New Left Review* No. 203, pp. 27-64.

Business Roundtable. In this lengthy tract (which incidentally is of high production standards and has the appearance of an official government publication) he goes as far to say that conservation is one of the "remaining 'ghettos' of socialism".¹¹⁸ These organisations advocate the use of market instruments and private property rights in establishing and achieving environmental policy goals.¹¹⁹

(iii) **Environmental public relations.**

Beder writes; "By 1990 US firms were spending about \$500 million a year on PR advice on how to green their images and deal with environmental opposition. By 1995 that figure had increased to a spend of about \$1 billion per year".¹²⁰ In addition to lobbying public officials PR involves the use of media, educational institutions, community forums, conferences, talk-back radio, web-sites, 0800 numbers, CD Roms and Videos, etc.

(v) **Advertising**

Including 'green marketing', the influence of advertisers on media, the promotion of consumerism *per se*, and political advocacy advertising.¹²¹

(vi) **Reporting on the environment**

There has been a decline since the late 1980s in the reportage of environmental problems – in the US it comprised 2 per cent of coverage in 1990 despite a high level of public concern. Studies have revealed coverage to be low priority, episodic and superficial, and comprised of little scientific and technical information. Moreover, large corporations which sponsor news-casts and run green advertising almost never get examined for their environmental record.¹²² There is also the problem of distinct ideological bias. For instance, environmental degradation in ex-communist states has been played up, whilst degradation in the West is played down. There has also been a tendency to under-emphasise environmental risks – for example, by selectively identifying studies which dismiss or down-play the health effects of certain chemical pollutants, even when those studies are dissenting from an overwhelming majority of scientific opinion.¹²³

While it must be acknowledged that these methods do not always work in businesses favour, and that their very existence implies the historical success of the environmental movement in placing these issues on political agendas, they do demonstrate a remarkable capacity to distort the public discourse on environmental matters.

The empirical investigation of the issue of power and discourse must proceed on two fronts. First of all the systematic distortion of communication must be examined by means of dialectical explanations (ie. by identifying, where possible, the disjuncture between commonly perceived and 'real' explanations).¹²⁴ The other approach is to look at the strategies used by business such as the mechanisms identified by Beder above.

5.4.(v) The Dilemma of Collective Action

Collective action is essentially an effort made by more than one person towards the "achievement of a common goal or the satisfaction of a common interest".¹²⁵ Through

¹¹⁸ P. Hartley, 1997, *Conservation Strategies for New Zealand* New Zealand Business Roundtable, Wellington.

¹¹⁹ The New Zealand academe and policy circles have been greatly influenced by these ideas. Cf: P. Ackroyd, *et al.*, 1991, *Environmental Resources and the Market Place* Tasman Institute, Allen and Unwin, Sydney.

¹²⁰ S. Beder, 1997, *Global Spin: The Corporate Assault on the Environment* Scribe Publications, Melbourne, p. 108.

¹²¹ *Ibid.*, Ch's 10 and 11.

¹²² *Ibid.*, p. 213 and Ch. 13. On the problem of media bias see: M. Parenti, 1986, *Inventing Reality: The Politics of the Mass Media* St. Martin's Press, New York; M. Lee, and N. Solomon, 1990, *Unreliable Sources: A Guide to Detecting Bias in the News Media* Carol Publishing, New York.

¹²³ Cf. Beder's discussion of reportage on Dioxin, pp. 218-20.

¹²⁴ For example, Habermas' efforts to "penetrate the veil of ideology". On this account, we are able to identify structures of power by "comparing the prevailing normative structures on the one hand with the hypothetical system of norms which would result from a discursive will formation on the other". J. Thompson, 1981, *Critical Hermeneutics: A Study in the Thought of Paul Ricoeur and Jürgen Habermas* Cambridge University Press, Cambridge, p. 95.

¹²⁵ R. Wade, 1987, "The Management of Common Property Resources: Collective Action as an Alternative to Privatisation or State Regulation" *Cambridge Journal of Economics* No. 11, p.97.

association, the members of the group gain the power to defend or promote their collective interests. In the following studies I am essentially concerned with two types of collective actors – the capitalist and the environmentalist (where they are not functioning as capitalists). I argue here that each of these *types* of actor is systematically exposed to a different set of incentives/disincentives to act collectively, and that as a result of this there is a notable asymmetry in the capacities of business and environmental advocates to organise themselves and act collectively, with the environmentalist being structurally disadvantaged in this respect. It is appropriate to acknowledge at the outset that all of the previous mechanisms within this section have a bearing upon the collective action issue.

The starting point for my argument is Olson's seminal work, *The Logic of Collective Action*. Before I detail his argument I need to define the concepts of *collective* and *private* goods or interests. A collective or public good is defined by two properties: "Jointness of supply and impossibility of exclusion".¹²⁶ In reality very few interests or goods sought by groups are *pure* public goods and most goods exhibit the above noted characteristics to varying degrees of approximation.¹²⁷ In contrast, a private good is defined by its rivalness and exclusivity. The good may be provided to, owned, used, and even consumed by, an individual person. Given these definitions, it is possible to make a general association between certain social classes or groups and the type of interests or goods that they seek (note, this is a *tendential* and by no means fixed relation). On the one hand, as I have repeatedly stated, capitalists are by definition commodity producers (I must emphasise once again the use of 'production' in the Marxian sense) and commodities *are* private goods. Hence capitalists in their collective efforts are concerned, certainly in the first instance, with private interests. On the other hand, environmentalists are overwhelmingly concerned with the pursuit of collective or public interests. That environmental goods are so often collective or even pure public goods follows, in part, from an argument which I touched on first in the value discussion, and later in the section on property rights, that is, the ontological premise of open and highly integrated natural systems. This does not only apply to ecosystems, but also to relations such as those involved in the aesthetic appreciation of nature, for example. But the collective nature of environmental concerns is not only founded in the intransitive dimension, it also derives from the way people perceive their surroundings, and therefore includes matters of social practice, mores, ethics, normative political aspirations and the like. On the basis of these categories the locus of environmental conflict can thus be commonly seen as a conflict between interests in these two types of goods.

Olson's model begins with the assumption that participation in collective action involves some costs, whether in time, money or labour. On this basis Olson argues that no 'rational' individual will assume these costs unless two conditions are met; (i) that the likely benefits resulting from participation exceed the benefits which would accrue without participation, and (ii) that the benefits exceed the costs of membership and participation.¹²⁸ Steven Davis usefully summarises Olson's argument:

¹²⁶ R. Hardin, 1982, *Collective Action* John Hopkins University Press, Baltimore, p.17.

¹²⁷ Ibid.

¹²⁸ M. Olson, 1965, *The Logic of Collective Action: Public Goods and the Theory of Groups* Harvard University Press, Cambridge Ma, pp. 1-52.

The precise reason that these constraints prove insurmountable to many latent interests, Olson argues, is because of the so-called free-rider problem which occurs when a collective good is sought. Because such goods are non-divisible, they can be shared equally by all regardless of whether or not they participated. In addition, since collective goods appeal to such a potentially broad population, the perceived advantage added to a group by any one individual's membership will likely be calculated as insignificant and so the costs of membership would most often lead to costs outweighing benefits.¹²⁹

For interests seeking collective goods, therefore, neither of the aforementioned conditions for participation would likely be met. The only way in which an interest group could get around this dilemma and attract members, maintains Olson, is (1) when selective benefits are offered in addition to a group's collective goals (these are available only to members and might include such incentives as magazines, discounted travel, or insurance), (2) membership is made compulsory, or (3) the group is small enough to allow an individual's impact upon achievement of the group's objectives seem sufficiently noticeable so that the benefits of participation would tend to outweigh the costs.¹³⁰

Thus, in the context of environmental conflict, there are first of all capitalists who are well able to dispense selective benefits to attract members/employees, and who by seeking exclusive benefits are able to avoid free-rider problems, and secondly, there are environmentalists who are far more likely to be hindered by the disincentives of free-riders, and who (and here also with reference to the resource issue – see 5.4.(iii)) are less able to use selective benefits to attract members. In summary, the corollary of Olson's argument is that those who seek collective interests tend to be placed at a greater disadvantage than those who pursue more concentrated material benefits.¹³¹

Olson's schema has been the subject of much criticism. Its biggest weakness is that it reduces the complexities of collective action to the two very broad principles of the rational choice/actor model. The fundamental assumption that people are "fully rational ... with near perfect knowledge about costs and benefits" is questionable.¹³² Certainly our 'bounded' rationality is prone to such influences as emotion, ideology, fear, spite, altruism or obligation.¹³³ It seems common sense to assume that such complex social behaviour must be the product of diverse and historically contingent factors. Against this, Olson's model appears reductionist, mechanistic and totalising. Nevertheless, few of its critics actually reject his argument outright. Olson's argument was a forceful corrective to classical pluralism, dispelling (but not in isolation from other arguments) the notion of a level playing field for interest groups. It is, however, important to deal with the pluralist rejoinder to Olson. Pluralists have argued that in recent decades many liberal democracies have experienced a proliferation of interest groups, representing diverse interests – and, contra to Olson's schema, often collective or public interests. These groups have in numerous cases been able to exert considerable influence upon political decision-making. To account for this,

¹²⁹ Elsewhere, Knoke refers to these conditions as the "free rider principle" and the "principle of imperceptible effect". D. Knoke, 1990, *Organizing for Collective Action: The Political Economies of Associations* Aldine de Gruyter, New York, pp. 32-3.

¹³⁰ S. Davis, 1996, "Environmental Politics and the Changing Context: Interest Group Organization" *The Social Science Journal* Vol. 33, No. 4, pp. 344-5. Davis's study is a useful, although predictable, empirical confirmation that in addition to the dynamics of Olson's model, collective action is shaped by a series of factors (which I discuss in the main argument). The strength of his research is that it provides a useful empirical reference source regarding resources and methods of environmental and business advocates in environmental conflict.

¹³¹ R. Andrews, 1980, "Class Politics or Democratic Reform: Environmentalism and American Political Institutions" *Natural Resources Journal* Vol. 20, p 239.

¹³² S. Davis, 1996, "Environmental Politics and the Changing Context" p. 346.

¹³³ W. Kelso, 1978, *American Democratic Theory: Pluralism and its Critics* Greenwood Press, Westport Ct, Ch. 1.

'critical' pluralists have emphasised the importance of such factors as: (i) The *differentiation* of roles and hierarchies within interest groups; (ii) The importance of key actors who perform as *entrepreneurs/risk takers*; (iii) The *dedication* of key agents to a goal; (iv) The reliance upon *professional* agents such as lawyers and consultants – as high skill levels can enable organisations to achieve successes disproportionate to the size of the membership group; (v) The importance of government patronage; And (vi) the dynamics of *coalition* interest groups instead of the specific 'atomistic' form of Olson's model.

These criticisms, notwithstanding, I include Olson's model because it describes a specific and important mechanism of business dominance. While I acknowledge that the 'rational choice' theorem is limited (its application to certain realms of action may be severely misguided and can at worst result in perverse political practices), it remains relevant to capitalist behaviour. This analytical framework sets out to derive and identify mechanisms of business domination which are connected to relatively enduring dynamics of capitalism. Whether we call it rational self-maximisation, acquisitiveness or greed, the basic impulses of the rational actor model are the drivers (and, indeed, products) of capitalist relations. My approach in this class analysis has been to place capital at the centre of the model and, in most instances, to treat the complex phenomenon of environmentalism in a residual sense. The realist approach allows Olson's model to be treated as one transfactual tendency among many, and as a consequence does not rule out recourse to other factors such as those contained in pluralist analyses. Its actual causal efficacy in any historical episode, like that of the other mechanisms postulated here, will only be revealed through historical investigation.

5.5. Conclusion

The analytical framework is made up of two elements. On the one hand, I have developed an argument about how business values the world, and on the other hand an argument about the way that power is derived from the ownership and control of commodity production.

My argument within this chapter operated on two levels. On one level a series of enduring relationships are understood to exist between the business and the state in advanced capitalist society. This is the largely theoretical structural analysis that I identified in the literature on business dominance in environmental conflict. What I have done is to take one representative model – Offe's schema – and interpret it in realist terms as broadly, but *not exclusively*, descriptive of the general business-state-civil society relation. My intention is to see how useful that broad theory is for understanding business power in the empirical studies. By moving on to include the specific mechanisms that have been studied by neo-pluralists, I have sought to connect that generic level with five mechanisms of dominance that have been studied usefully in empirical terms. This will enable me to better understand the connections between the two levels, and between the five specific mechanisms themselves. It is envisaged that each of these levels and the individual mechanisms will be of varied explanatory value across the two case studies, but by positing a range of sources of business power it will be possible to explain in some useful way how business derived its power in each of the case studies.

Finally, for the sake of clarity I review the key elements of the framework in Table 5.2 below. This chapter, and the one before it, function as a heuristic guide and general

explanatory framework for the examination of business dominance in environmental conflict. They are based upon a return to core dynamics of capitalist economic relations. But while the emphasis is upon the causal role of economic powers, any deterministic tendencies are avoided through recourse to realist principles. More specifically, the realist ontology and consequent epistemological limits explicated in the previous chapter ensure that this model can only be a partial and relatively enduring explanation of environmental conflict itself. Moreover, it is *not* a totalising theory and it cannot, therefore, predict that business will dominate in a particular substantive environmental outcome. Environmentalists – as individuals and groups can and do extract meaningful concessions within environmental conflict. Nevertheless the argument is that business is able to draw upon a range of mechanisms of power that confer upon it significant advantages within environmental conflict. Quite simply, there is not a level playing field. However, this is not envisaged to be the crucial insight of this thesis. I took the existence of business power as a starting point within Chapter One, and the focus here is upon understanding that dominance. It is for the discussion in the case studies to reveal how this power does or does not operate in historical contexts, and how these mechanisms are mitigated, negated, etc., by countervailing mechanisms and tendencies.

Table 5.2. The Model of Business Dominance in Environmental Conflict

The Analytical Framework: Summary
<p>4.2. Value-Form and the Study of Environmental Conflict</p> <p>In order to investigate the phenomenon of business dominance in environmental conflict I turn first to the problem of class-analysis. I place capital at the centre of the model and seek to treat environmentalism in a counterfactual or residual sense rather than as a generalised aggregation of actors characterised by a set of core features. Instead, I posit – or more accurately, draw together from existing literature on environmental conflict and political economy – a series of structural mechanisms which pertain to the dynamics of capital and these form the core of the framework. These mechanisms fall into two broad categories: Value and Dominance. <i>Value</i> performs a twofold function, on the one hand grounding the class analysis element by defining capitalists in functional terms as the producers (producers, exchangers and consumers) of commodities, and on the other hand, by establishing a systematic connection between the political-economic category of Capital and that of Nature (or more broadly the ‘environment’). Like Bhaskar’s model of the Social Cube it adds another dimension to the society/person connection – the society/person/nature connection. The second category of <i>dominance</i> is concerned with the ways in which capital is able to exert power over other actors in environmental conflict. It operates on two levels: the system-wide level of the <i>functional</i> relations between capital, state and civil society, and the more concrete and specific level of particular mechanisms of business dominance. The two levels segue into one-another.</p>
<p>Part One: Value</p> <p>4.3. Value Discourse, Value Form and the Human↔Environment Relation</p> <p>At the centre of this section is the concept of the commodity. The commodity form is seen to incorporate two elements; use-value and exchange-value. In addition to this dichotomy I also discuss the money-form (as pure exchange value). Following this I examine the implication of each of these forms for the society-nature connection, the essence of my argument being that the systematic emphasis upon, privileging, and extension of, exchange-values and the money-form, in capitalist societies is problematical in environmental terms. It also establishes a systematic connection between ecological-harm and capital as a social category, which links in with the next section, for if capital is seen to dominate in environmental conflict then this will have potentially adverse environmental consequences</p>
<p>Part Two: Dominance</p> <p>5.3. Offe’s Strategic Model</p> <p>Having reviewed the literature on state theory, I broadly adopt Offe’s functional model of the state-capital relation, although I amend and supplement his analytical categories (exclusion, dependency, maintenance and legitimation) on the basis of the wider political-economy literature, and on the basis of realist principles. I thus seek to avoid the totalising tendencies of his schema. Instead I offer a model which while describing a strong tendency for capital to be able to shape the process and outcomes of politics, leaves room for other causal elements, not least of which is the role of the historical agent.</p>

5.4. Mechanisms of Business Dominance

In this final section I outline five broad structural mechanisms which contribute to the dominance of business in environmental conflict: the ability of business to inflict sanctions on society, disparate resources, the privileging of private property rights, the distortion of environmental discourse, and the logic of collective action. These mechanisms complement the functionalist tendencies of the previous section with more concrete historical work: for example, in its conception of the state as institutional matrix rather than as a series of functions.

Black Head: Natural Character, Historical Use and the Arguments Surrounding Quarrying

6.1. Introduction

The Black Head promontory lies on the coast just south of Dunedin. At the time of the following dispute, from the early 1980s through to 1990, the seaward faces of the headland were made up of a startling series of volcanic rock formations, which rose from below sea level to a height of approximately 90m. In addition, the coastal periphery contained important remnants of ecological communities endemic to that stretch of coastline. While Black Head had long been quarried for its dense basalt, by the mid-1980s the rate of extraction had escalated significantly, and that activity was having adverse environmental impacts. Indeed, it had the potential to completely destroy the natural character of the area. That possibility led to the formation of a community coalition of Maori, conservationists and recreational users (The Friends of Black Head – hereafter the *Friends* or *FoB*), for the sole purpose of persuading the owners of the quarry (Black Head Quarries Ltd – hereafter *BHQ* or the *Company*) to either desist extracting basalt at the site, or otherwise modify its operating regime. It is the ensuing struggle over this issue that I refer to as the Black Head conflict.

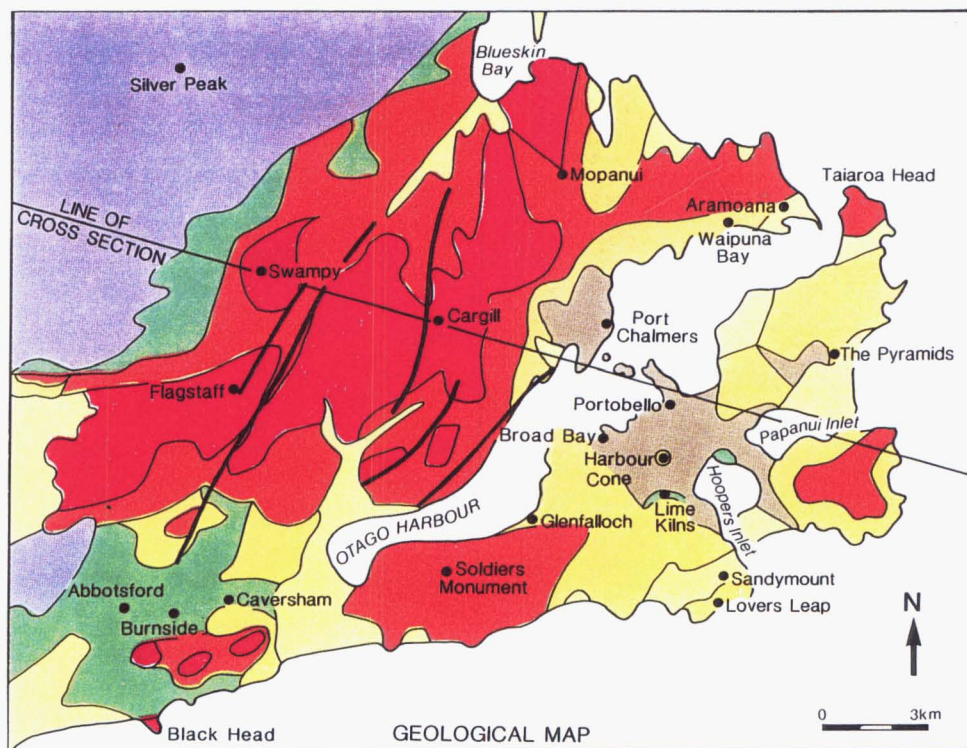
The study is conducted over the course of four chapters (see 3.3. as to why I have taken this approach). The first three of those chapters are largely empirical. My intention is to establish a solid contextual foundation upon which to base the critical analysis in Chapter Nine. However, this is not to claim that these three chapters are value-neutral, for the empirical work is clearly guided by both the focus and information requirements of the analytical framework. Yet it is only by setting out the studies this way that I can conduct the theoretical analysis in a transparent fashion (see 3.3). The purpose of the present chapter is to background the dispute. I describe the area in question, past and present uses and their impacts, before moving on to review the arguments for and against the mining of basalt at Black Head. In doing so I pay particular attention to the Quarry Company (for example, its general interests and motivations, and its resources) in order to provide for both the value and power elements of the framework. This is because business power is the essential focus of inquiry. Chapter Seven is essentially a historical narrative of the dispute processes. It is organised that way because that form of argument usefully conveys the dynamic pattern and causal relationships of the conflict. The last of the broadly empirical chapters is Chapter Eight, which deals with the specific question

of who prevailed in the dispute in terms of the substantive outcome (which was in the form of a negotiated settlement). Finally, in Chapter Nine, I take each of the elements of the analytical framework set out in Chapters Four and Five, and systematically investigate their causal efficacy in the dispute.

One remaining point is that this case study, like the Whanganui study that follows, is treated in historical terms. Thus I largely set out the arguments and terms of reference, including predictions, as they were articulated at the time. I only expand on those arguments when clarification seems necessary, and it is certainly not my intention to conduct a cost-benefit analysis of any sort. Furthermore, I only point to post-settlement developments within footnotes or as a postscript.

6.2. Black Head: The Place, the Quarry, and the Impacts of Quarrying

Figure 6.0. Map of Dunedin Volcano and Location of Black Head



LEGEND

AGE (million years)			
< 1 my		river and beach sand	
11 my		3rd main eruptive phase	rocks of the Dunedin Volcano
12 my		2nd main eruptive phase	
13 my		1st main eruptive phase	
13 my		initial phase	
13 - 75 my		sedimentary rocks	
150 - 250 my		schist	
		—	fault lines

6.2.(i) *The Natural Character of Black Head*

Black Head juts out into the sea five kilometres south along the coast from St Clair beach in Dunedin (see Figure 6.0.). The huge geological structure was formed eleven million years ago during the third and final eruptive phase of the Dunedin Volcano. At this time the volcano produced a massive upthrust of basalt¹ and phonolite which spread out over a wide area.² Black Head itself, lies at about the southern limit of the volcano's lava deposits. In the ten million years since volcanic activity ceased the headland was further shaped and transformed due to a variety of forces. The huge block of basalt has been down-thrust along a fault line that runs along its landward margin. The landward contact across the fault is with Caversham sandstone, which also underlays the basalt formation at a depth of approximately 30 metres below sea level. Due to the extensive faulting, outcrops of the older Caversham sandstone can also be found high on the inland crest of the headland. The headland area has also been built up with layers of scoria, clay and topsoil.³ The area has also been worn down by wave action and weathering.⁴ The effects of these erosive processes are most profound on the seaward side of the promontory where the geological formations at the centre of the dispute are to be found (see Figures 6.1, and 8.1 – the Black Head photographs are located in attached envelope).

As the molten lava slowly cooled and hardened some of the rock stressed and fractured, forming regular symmetric patterns of vertical columnar jointing.⁵ Most of the basalt deposit at Black Head is jointed into polygonal blocks and columns (see Figures 6.2 and 6.3). The crests of the steep faces display examples of the larger blocks and boulders, but the thickest and longest columns are to be found on the lower faces. The most striking examples of the columnar formations skirt the southern periphery of the headland, where the basalt is displayed in water worn form, seawater and spray having kept the basalt a dark grey colour. The few other examples of columnar basalt in the Dunedin area feature at a higher level and have developed a light grey rind due to weathering. In the lower outcrops of Black Head, near vertical columns, mostly 30-40cm thick and five to seven sided in section, step back from the sea with their flat tops in an irregular staircase pattern. In addition to vertical formations there are horizontal columns, and a "diversity of fan, basin and chevron structural patterns".⁶

There are – or *were* at the time of the dispute – several distinct formations of note. The 'Roman Baths' was a large amphitheatre-like basin with a salt water pool, enclosed by

¹ "The most abundant rocks of the Dunedin Volcano are broadly described as *basalt*. They are dark rocks because they are rich in minerals with abundant iron and magnesium (eg. olivine, augite, magnetite) and poor in the lighter 'felsic' minerals (feldspar, nepheline, quartz)." New Zealand Geological Survey, 1989, *The Dunedin Volcano* Pamphlet, DSIR, Dunedin.

² *Ibid.* This burst of activity was centred on the north and west sides of the mountain, and because of that, the youngest volcanic rocks are not found on the Peninsula proper. Today they form the high peaks of Flagstaff, Swampy, Cargill and Mihiwaka.

³ Black Head Quarries Ltd, November 1989, "Draft Management plan" Fairfield, Dunedin, p. 2.

⁴ This effect would have been accentuated by the variation in sea levels which occurred during the ice ages of the Pleistocene times (2 million to 12,000 years ago). New Zealand Geological Survey, 1989, *The Dunedin Volcano*.

⁵ For more information about this process see: A. Aydin and J. De Graff, 1988, "Evolution of Polygonal Fracture Patterns in Lava Flows" *Science* Vol. 239, January, pp. 471-5.

⁶ Friends of Black Head, October 1989, "Black Head: The Conservation Case" Submission made by the Friends of Black Head, Dunedin, p. 3.

columns, and with a mosaic floor made up of the water worn ends of columns (see Figure 6.4).⁷ Nearby, was 'The Dock'. A causeway of columns that reached out into the sea at an oblique angle (see Figures 6.8, 6.9, 6.10 and 6.11). Also there were the towering Eastern Bluffs which rose directly from sea level to a height of over 80 metres. The upper levels of the cliffs were dominated by large overhanging cusps of fan and basin aligned columns (see Figures 6.6 and 6.7).⁸ Finally, there were a number of rare basaltic caves submerged beneath the ocean surface.

The slopes of Black Head have in recent times provided habitat for a range of vegetation types characteristic of the botanically distinct Dunedin coastal headlands.⁹ Dr Peter Johnson, a botanist from the Department of Scientific and Industrial Research, Botany Division, recorded:

The next cliffed portion of coastline to the south, starting at the Nuggets and extending around the Catlins coast, is botanically different in many ways. Also different in their plant cover are the next cliffed headlands to the north (only Cape Wanbrow before Banks Peninsula). Compared with other Dunedin headland vegetation, Black Head offers the richest example of low divaricating scrub in a windswept coastal site. A broad representation of coastal plant species is present.¹⁰

In an earlier report he alluded to the unique characteristics of the scrub, noting that the vegetation was "dwarfed to a degree not seen on other parts of the Dunedin coast, yet still comprising a wide variety of shrub and tree species".¹¹ Some examples being "stunted ngaio scrub, flax and shore hebe".¹² Distribution of vegetation types on the coastal faces can be broken down into five main communities; the distribution being determined by the nature of the substrate and the degree of exposure to salt and wind. These communities are:

- i) Coastal grasses and herbs on upper rock faces;
- ii) Prostrate divaricating shrubs on the upper talus slopes;
- iii) Flax, grasses and dwarfed coastal trees on lower talus slopes;
- iv) Low scrub of shore hebe, spleenwort ferns and native ice-plant, and;
- v) Salt tolerant herbs on the moist lower ledges.¹³

The area is also notable in that several alpine species are found upon the coastal slopes, and a number of plants are at the limits of their distribution, for example, "a species of fine-leafed speargrass, *Aciphylla subflabellata*, usually found in mountain areas, occurs at Black Head at about its southern limit".¹⁴

The headland had also provided habitat for a range of wildlife. Both black and Stewart Island shags, as well as black-back gulls had nested in the area. There were reports of endangered yellow-eye penguins sheltering along the shoreline.¹⁵ It was also thought that yellow-eyed, crested and probably little blue penguins, roosted and moulted in the neighbouring areas, although no penguins had been found to actually nest there.¹⁶ Finally,

⁷ P. Johnson, February 1986, "Black Head Near Dunedin: A Case for Preserving Features of Scenic, Geological and Botanical Interest" Unpublished report, Botany Division DSIR, Dunedin, p. 2.

⁸ Friends of Black Head, October 1989, "Black Head: The Conservation Case", p. 3.

⁹ P. Johnson, February 1986, "Black Head Near Dunedin" p. 2.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ *Otago Daily Times* 11 June 1988.

¹⁵ *Otago Daily Times* 13 March 1989.

¹⁶ Friends of Black Head, October 1989, "Black Head: The Conservation Case" p. 3.

there was aquatic life, most notably the large kelp forests that skirted the headland, providing habitat for an abundant shellfish population (eg. paua, mussels and crayfish).¹⁷

6.2.(ii) *Quarrying at Black Head*

As I noted at the outset, the Black Head conflict arose in response to the quarry operations. In this sub-section I will discuss the historical development of that use, and as I do so I will introduce issues such as the particular rights structure that empowered the Company to extract basalt.

It was asserted in the conflict that the headland had a long record as a source of stone for human use.¹⁸ Originally known to local Maori as Makereatu or Tinerau, the headland served as a stone gathering site for many generations of the Waitaha and Kati Mamoe peoples.¹⁹ Broken basalt columns were collected from the lower seaward slopes, and once gathered the basalt was then fashioned into tools.²⁰ All activities concerning Makereatu were considered sacred, and therefore, extraction was guided by an elaborate system of rules and restrictions in observance of the complex tapu.²¹ Any impact made by this activity was insignificant as extraction relied upon columns that had been broken due to natural processes.

The origins of large-scale extraction can be traced to 31 July 1844, when the Otago (Otago) Block purchase was made. Representatives of the New Zealand Company (the southern Wakefield settlement) purchased 200,000 hectares of land from Ngai Tahu for the price of £2,400. The area of land ran from the Otago Harbour in the north to Nugget point in the south, and included the headland later known as Black Head.²² The bulk of that land subsequently passed into the ownership of the Crown.²³ In October of 1871 under the *Waste Lands Act 1866*, Crown Grant number 12684 was made to Ezekiel Laverty, this grant being Section 3 Block XIV of Dunedin and East Taieri Survey District and Sections 154 and 155 Green Island Bush Survey District. The area covered around twenty-five hectares including the approximately fifteen hectares of land known as Black Head.²⁴

The date at which Mr Laverty acquired the freehold title to the site from the Crown was significant in two respects, first, regarding ownership of the mineral resource, and secondly, in defining the potential extent of basalt extraction. At common law the holder of the freehold title is *prima facie* entitled to all minerals on or under the surface of their land (except gold and silver). However, prior to the enactment of the *Mining Act 1971* alienations of Crown land were not necessarily subject to reservation of the mineral resource by the Crown. With regard to Black Head, it seems that at the time of the 1871 purchase there was no legislation in force which retained Crown ownership of the minerals.²⁵ As a consequence, subject to the Quarry

¹⁷ Ibid

¹⁸ I use the term asserted because of reasons that will be explicitly dealt with in 6.4.(i).

¹⁹ Peter Carter (of the Whanau-o-Otokia, Brighton, Dunedin), 2 March 1990, "Black Head" *Otago Daily Times*.

²⁰ Friends of Black Head, 1989, "Black Head a Treasure Worth Saving" Pamphlet, Dunedin.

²¹ Department of Conservation, 1988, "Values of Black Head" File note 8/366/11, Department of Conservation, Dunedin.

²² H. Evison, 1993, *Te Wai Pounamu – The Greenstone Island: A History of the Southern Maori During the European Colonisation of New Zealand* Aoraki Press and Ngai Tahu Maori Trust Board, Wellington and Christchurch, pp. 203-12.

²³ Ibid., Ch. 10.

²⁴ Title Search.

²⁵ All alienations of Crown land after 1 April 1973 (when the *Mining Act 1971* came into effect) reserved every

adhering to the requirements of the relevant legislation, extraction was a legitimate land use. An associated consequence was that the Company did not require a mining licence to operate the quarry.

The second crucial feature that derived from the early acquisition of the freehold title is that the area of ownership extended right down into the littoral zone as far as the mean high tide mark. That situation was somewhat anomalous as at the time of the conflict most of New Zealand's coastline, river and stream bank safeguarded by a provision known as the Queen's Chain. The Queen's Chain (or 'marginal strip') was a 20 metre wide strip reserved for public access and use.²⁶ Because the title was granted prior to the enactment of legislation providing for Queen's Chains, the landowners were legally entitled to quarry down to this level (which would in effect destroy all of the columnar formations).

Commercial quarrying of the basalt from the headland probably began as early as the 1800s when rock was taken for use as ballast on ships returning to Sydney, where it was later used as building material. Extraction of such sorts would have been in small quantities making only a minor impact upon the headland's physical character. However, Black Head was to remain relatively untouched until 1948 when electricity was made available to the area. From that date onwards, basalt was constantly extracted for road metal, railway ballast and concrete aggregate.²⁷ The enactment of the *Town and Country Planning Act 1977* was also significant for the Company's use rights, because under the Act the quarrying activity was deemed an existing use. The quarry owners were thus exempt from having to obtain planning consent for their extractive activities.

But it was only around 1986, when two long established Dunedin companies, Fulton Hogan Holdings Ltd and Palmer and Sons Ltd (see 6.3.(i)), increased their previous minority share holdings to full 50/50 ownership of Black Head Quarries Ltd, that the magnitude of the operation increased. At the time of purchase there was pressure upon Fulton Hogan to move away from their nearby Saddle Hill operation, where they were beginning to make a highly visible impact upon that prominent landmark. Black Head offered a massive source of high quality basalt within close proximity.²⁸

In summary, although there had been a long history of quarrying at Black Head, up until thirty years prior to the dispute extraction had only been on a small scale. Indeed, it was only around 1986 that the quarry became an immediate and significant threat to the natural character of the headland. A very important point here, given the property rights mechanism (5.4.(ii)), was that the quarry operations was virtually free from any statutory constraints upon its ability to flatten the headland to the mean high-tide mark.

6.2.(iii) The Environmental Impacts of Basalt Extraction

Examination of environmental problems is often hindered by two factors. First, assessment of the impact of a resource use may be unclear, as ecological problems are renowned for their

mineral existing in its natural condition on or under the surface of the land. G. Hinde and M. Hinde, 1986, *New Zealand Law Dictionary* (revised third edition) Butterworths, Wellington, p. 234.

²⁶ *Conservation Act 1987* S. 24.

²⁷ *Dunedin Star Mid-Week* 11 June 1986.

²⁸ John Fulton (Chairman of Directors), 14 August 1990, Personal interview, Fulton Hogan Holdings Limited, Head Office, Fairfield, Dunedin.

complexity. There may be difficulty deciding what exactly one should be looking for, and having achieved this there may be further problems regarding measurement. Secondly, there is the problem of assessing causality. The researcher can be faced with a proliferation of symptoms for which diagnosis may seem problematic. However, in the case of Black Head the impact assessment was relatively clear. Black Head was a finite resource, the supply of rock being totally fixed. Quarrying was an extractive form of resource use, hence, as the basalt was quarried the headland decreased in size. One can, therefore, easily assess the nature of the physical impact. Quantitative evaluation is achieved simply by subtracting the amount of rock extracted from the total volume of the basalt deposit (which in this case is in excess of 20 million tonnes²⁹). In causal terms, the following symptoms of environmental degradation in the vicinity of the headland were undoubtedly caused by the quarrying activity. In this subsection I will describe the bio-physical effects that quarrying activity had already had upon the headland at the time of the dispute, and also point to the projected future effects that further motivated the case for preservation.

Prior to the early 1980s, the physical effects of quarrying were mainly confined to the inland side of the headland. In a 1982 report Dr Johnson, of the DSIR, noted that there had been some moderate damage caused to the biota and columns, caused by spillage of quarry debris out over the coastal faces.³⁰ But it was with the escalation of activity in the mid-1980s that serious damage began to occur. When he revisited the area in 1986 Johnson recorded that the damage was of a much greater order of magnitude.³¹ It was this visit that motivated his action on the issue (see 7.2.(i)).

I noted earlier that there was a large increase in extractive activity around 1986, when Palmers and Sons and Fulton Hogan increased their investments in the operation. To increase production, the Company began to strip away the overburden that covered the basalt deposit, enlarge the processing facilities (crushing plant etc.), and set aside stockpile areas. In addition, there was the impact caused by the extractive activity itself – the removal of the basalt for crushing.

The stripping process, which by 1989 was virtually complete, involved the removal of layers of sandstone, scoria, clay and topsoil in order to expose the basalt.³² This process had two immediate impacts; first, the diminution of the headland feature, and secondly, the deposition of the unwanted materials over the seaward faces. The cumulative effect of stripping and basalt extraction was to lower the headland to a height of somewhere between 80-90 metres.³³ Where in the past the headland had risen steeply to a rounded crest, by 1989 it had culminated abruptly in an unnatural plateau. Displaced material had spilled out over the seaward faces to create talus slopes that extended into the sea. The pale Caversham sandstone of the overburden was highly visible in contrast to the dark natural appearance of the southern faces. In addition, the steeper and more isolated eastern faces were also coated in debris.³⁴

²⁹ Black Head Quarries Ltd, 1989, "Draft Management Plan" Fairfield, Dunedin, p. 1.

³⁰ P. Johnson, November 1982, "Black Head Near Dunedin: Botanical Notes" Unpublished report, Botany Division, DSIR, Dunedin.

³¹ P. Johnson, February 1986, "Black Head Near Dunedin" p. 3.

³² Black Head Quarries Ltd, 1989, "Draft Management Plan" p. 1.

³³ The original height of the headland prior to any quarrying activity was 127 metres.

³⁴ Lloyd Godman, (Lecturer in Photography at Otago Polytechnic) 14 August 1990, Personal communication.

Also during this period, the quarry operation moved to the edge of the headland (established quarry practice being to move to the periphery of the deposit and work back³⁵). The company engaged in blasting along the rim of the quarry, which added to the already considerable spillage.³⁶ A central issue of contention in the dispute was over the motives for allowing the debris to spill over the edges, with the conservationists alleging purposeful dumping on the part of the company, and the company defending the overflow as "inevitable spillage".³⁷

By the late 1980s there had been substantial damage to the geological, botanical and wildlife features previously described. The columnar formations had suffered to varying degrees. Landward access to the formations along the tidal area passed under and across numerous scree slopes formed by the overburden, with material continually sliding down into the sea. Many of the columns around the periphery had been smashed and buried by rock falls. The formation which suffered the most were the 'Roman Baths', with many of its columns, egg shaped boulders and the sea-water pool having been buried under approximately 100 tonnes of rubble.³⁸ As well as the 'Baths', the entrances to the sea caves had been covered in places. The biota of the headland also suffered. Between Johnson's 1986 report and 1989, the remnant coastal vegetation had been severely damaged, and certain species were feared lost from the headland".³⁹ Nevertheless, the surviving vegetation was still considered to be representative of the ecological district. In addition, the nesting sites of the various resident bird-life may have been destroyed and roosting penguins disturbed. Finally, divers reported that spillage onto the sea floor had adversely affected the surrounding sea life.⁴⁰

There were reports of other physical impacts outside the quarry area: The modification of the beach on the north side of Black Head where large shingle banks had been replacing the sand;⁴¹ Vast quantities of dust blowing away from the area in offshore wind conditions;⁴² And also, high levels of noise were emitted from the quarry during working hours.

The potential environmental impacts of quarrying were also very important in the subsequent discourse (see 6.4 below, and Chapter Seven). Attempts to estimate the impact of future resource use were, of course, made in the context of risk and uncertainty, but there were some reasonable assessments made.⁴³ In the case of Black Head predictions were generated on the basis of the continued rate of abstraction. The output of the quarry was put at 192,000

Dunedin.

³⁵ John Fulton (Chairman of Directors), 14 August 1990, Personal interview.

³⁶ The idea being that "the wall of overburden (poor quality weathered rock) surrounding the pit must be cleared away from the edge to allow the quarrying to continue on the next level". *Critic* 18 April 1989, p.3.

³⁷ John Fulton (Chairman of Directors), August 14, 1990, Personal interview.

³⁸ *The Dominion Sunday Times* 18 June 1989.

³⁹ Friends of Black Head, October 1989, "Black Head: The Conservation Case" p. 3.

⁴⁰ Friends of Black Head, 1989, "Black Head a Treasure Worth Saving" Pamphlet, Dunedin. There had also been a ban placed upon commercial shell fishing in the area by the Ministry of Agriculture and Fisheries due to the possible pollution hazard from the Waldronville ocean sewage outfall. *Dunedin Star Weekender* 11 February 1990.

⁴¹ Lloyd Godman, 14 August 1990, Personal communication, Dunedin.

⁴² Peter McComb (Surfer), 11 December 1990, Personal communication, Dunedin.

⁴³ The main example was the work of Dr Ross Cullen, then a lecturer in resource economics at Otago University. I will draw upon Cullen's analysis extensively in the following discussion, and most heavily in Chapter Eight where I base a lot of my argument on his discounting analysis of the quarry's value, and the value of the final negotiated settlement. R. Cullen, 1991, "Discounting the Economic Costs of Conservation and Compensation" *Environment and Planning A* Vol. 23, pp. 1121-32.

tonnes per annum (this was the figure for 1988, and production dropped slightly to 178,464 tonnes in 1989).⁴⁴ Constant extraction at that rate could be sustained for approximately 90+ years before it reached the projected floor of 102.00 metres Otago Datum (100.00 metres representing the mean sea level), and extended to the landward margin somewhere in the vicinity of the fault line mentioned earlier.⁴⁵ In effect, the headland would virtually disappear if the Company chose to quarry to the full potential of its use rights. Such activity would, of course, destroy all of the natural features previously discussed. Furthermore, most of the botanical features existed above the thirty-metre mark, and would in all likelihood, be destroyed at a much earlier date. Similarly, the columnar formations would suffer from the depositional effects of quarrying activity well before they became threatened by extraction.

In summary, the headland was a finite natural resource the supply of which was totally constrained. The resource exhibited physical characteristics of a highly specific nature, and as such was extremely scarce. The quarrying of basalt intensified markedly throughout the 1980s leaving the headland in a highly modified state. The extractive use was enabled by a strong private property regime, which effectively obviated the necessity for the company to gain both mineral rights and town planning consents. That meant that, other than economic exigencies, there was nothing restraining the Company from levelling the headland virtually to sea level. Finally, the effects of the extractive use would, in great part, be irreversible in two senses: First, because they resulted in “‘a user cost’, the foregone future extractive output”; And secondly, they caused “‘a loss (in perpetuity) in value from the undisturbed environment”.⁴⁶

6.3. Black Head Quarries Ltd. and the Arguments for Extraction

In this section I undertake two tasks: First, I describe various structural features that ultimately affected the ability of Black Head Quarries to mobilise and influence in the pursuit of its interests, and which also served to define those interests. Discussion therefore begins by examining the Company’s position within a wider complex of business ownership and the importance of those parent companies within the Dunedin⁴⁷ (and ultimately national) economy; Secondly, I discuss the Company’s argument for the extraction of basalt at Black Head. The main element of that discussion is to point to the commercial value of the quarry operation. In discussing both these elements I provide one basis for the critical analysis contained in Chapter Nine, and embrace both the value and power elements of the framework.

6.3.(i) Black Head Quarries Ltd and the Dunedin Economy

As I mentioned earlier, Black Head Quarries Ltd was jointly owned by two companies; Fulton Hogan Holdings Limited and Palmer and Sons Ltd. At the time of the conflict Fulton Hogan was a rapidly expanding unlisted public company. Since 1970, the Fulton Hogan business had

⁴⁴ Ministry of Energy, (various years) Annual returns of production from quarries and mineral production statistics, Ministry of Energy, Wellington.

⁴⁵ Black Head Quarries Ltd, 1989 “Draft Management Plan” p. 3.

⁴⁶ J. Krutilla and A. Fisher, 1983, *The Economics of Natural Environments: Studies in the Valuation of Commodity and Amenity Resources* Butterworths, Toronto, p. 47.

⁴⁷ The 1986 census recorded 102,543 people as being usually resident in the Dunedin area, and 176, 223 in the wider Otago region (including Dunedin). Department of Statistics, *New Zealand Census of Population and Dwellings 1986: Regional Summary Series B Report 24*, pp. 15, 32.

developed from an almost wholly Otago operation, to a national one, through purchases and takeovers of companies in Nelson, Christchurch, Invercargill and Auckland. By the end of the dispute, the Fulton Hogan Group had a permanent branch in Brisbane, and had undertaken large contracts throughout the central and south Pacific (for example, the construction and sealing of runways in Fiji, Western Samoa, Tonga and in Papua New Guinea). By 1990 it had a group turnover of approximately \$150 million, and approximately a thousand full time employees on the payroll (not including associate companies such as BHQ). The company's rapid expansion was enabled by Shell New Zealand's purchase of a 24 percent interest in 1981, which was later increased to 38 percent in 1989 (see Appendix E for tables which list Fulton Hogan's regional interests, and the company's program of acquisitions since 1970).⁴⁸ Fulton Hogan were undoubtedly a significant business even in the national context, they were tied in with wider structures of business ownership in New Zealand, and due to Shell's interests, with international capital. By contrast, Palmer and Sons was a smaller private company that employed approximately forty staff in the Dunedin area.⁴⁹ Together these companies exhibited a high degree of penetration within the relatively small regional economy.

Another potential source of influence derived from the personal and social connections of the senior managers in the Dunedin community. Most of the businessmen who were directors of Fulton Hogan sat on the boards of other companies, some held public office, and could exercise considerable influence in their own right. For example, the chairman of the board, Ian Farrant, had an estimated personal wealth of \$20 million,⁵⁰ he was also chair of the Regional Health Authority, and had in that capacity been responsible for overseeing the restructuring of the public health system in the South Island. Another board member, and past group policy and finance director, William Auld, had been a prominent Councillor on both the Silver Peaks County Council, and (following boundary changes) the Dunedin City Council (both local authorities respectively had responsibility for the territorial area that included Black Head).⁵¹ The overall impression is of a large local company thoroughly enmeshed in the community power structure of both Dunedin and the Otago region.

A further potential source of influence derived from the type of operations owned by the two parent companies. All but one of the basalt quarry sites in the Dunedin area were owned by either one or the other of the two companies (the exception was the unused Mt Zion Quarry owned by the Dunedin City Council).⁵² Palmers' owned the other major active quarry at Logan Point in Dunedin.⁵³ Furthermore, not only were the two companies major suppliers of quarry materials in the region, they also had extensive investments in the downstream industries which made use of these products – there was a vertical integration of their activities. Fulton Hogan was one of the largest, if not the largest, roading and sealing contractors in New

⁴⁸ A. Tyrell, 1992, *The Fulton Hogan Story 1933–1993* Fulton Hogan Holdings Ltd, Fairfield, Dunedin, p. 119.

⁴⁹ *New Zealand Business Who's Who* 1992, (thirty-third edition) New Zealand Financial Press, Auckland, p. 389.

⁵⁰ *Otago Daily Times* 17 May 1991.

⁵¹ A. Tyrell, 1992, *The Fulton Hogan Story* p. 107.

⁵² G. Wilson (Department of Geography, University of Otago), 25 May 1989, Personal interview with John Walrond (Otago Mines Inspector, Ministry of Energy). But it should be noted that in 1988 basalt production from Black Head accounted for only 14 percent of the "rock gravel and sand quarried for roading and ballast within the Dunedin Mining Inspectorate". R. Cullen, 1991, "Discounting" pp. 1128.

⁵³ *New Zealand Business Who's Who* p. 389.

Zealand. In addition, both companies owned concreting operations, and Fulton Hogan also owned both construction and asphalt firms.⁵⁴

In 5.2.(ii), I acknowledged that the state is reliant upon resources created in the accumulation process. This structural constraint is no different at the regional and local levels, with councils reliant upon thriving communities of ratepayers to fund their activities. Thus, with respect to the Black Head quarry, the Silver Peaks County Council and latterly the Dunedin City Council, had an interest in the operation at all stages of production, from the immediate on-site employment of twelve full-time staff and the associated revenue from the quarrying activity, through to the downstream benefits of the processing activities.⁵⁵ Although, it must be noted that for the councils these benefits were *not* site specific and could possibly accrue from an alternative operation. What I have just described is a particular articulation of the dependency dynamic, but the maintenance role was also apparent in the business-council relationship (see 9.3.(ii) for analysis). Conscious of the historical decline in the economic base of the area, during the latter half of the 1980s the Dunedin City Council was taking an active role in "providing economic and political leadership to the region".⁵⁶ That the Council was strongly motivated by such exigencies will become increasingly apparent as the case study progresses.

The links between the Company (and parent companies) and local government, were further strengthened by the fact that most of their business was generated through contracts with public authorities (both in and beyond the Dunedin area). Also, those products and services were usually for the provision and maintenance of crucial economic infrastructure (eg. roads, construction, airports). The provision of these strategic services would no doubt heighten the structural influence of the companies within the region.

Indeed, a recurring theme throughout the dispute was the claim made by the companies involved that they were "concerned with the needs of the region", and thus performed a public function. The fact that these businesses provide the area with employment, revenue and services was repeatedly alluded to throughout the dispute.⁵⁷ Also, not only did those companies allude to the regional interest but they also justified their operation in terms of the national interest.⁵⁸ BHQ and the parent companies occupied a powerful position within the local economy and tended to equate its own interests with those of the region.

By its location within a wider and substantial complex of ownership, its economic and social interpenetration within the local economy and government, and its role as a provider of infrastructure for the local authorities, the Company could, *prima facie*, be expected to possess significant influence in the region.

⁵⁴ *Ibid.*, pp. 382, 389.

⁵⁵ Jim Hunter (General Manager of Black Head Quarries Ltd.), 3 August 1990, Personal interview, Logan Point Quarry, Dunedin.

⁵⁶ Richard Walls (Mayor of Dunedin), 13 November 1990, Personal interview, Dunedin Civic Centre. Also see: Dunedin City Council, *Annual Plan 1990/1991* p. 8. Where the second goal of the mission statement was "To create conditions in which existing business can flourish and to which new enterprises will be attracted primarily through promotional activities and the provision of incentives."

⁵⁷ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview.

⁵⁸ Peter Constantine (Planning Consultant), 7 July 1989, Speaking on behalf of Black Head Quarries Ltd, Public Meeting, Otago Museum, Dunedin.

6.3.(ii) *The Value of the Quarry to the Company*

Earlier in the chapter I noted that the basalt was quarried and crushed to provide aggregate, which was then used as road metal, railway ballast, concrete manufacture and in the production of panels for facing buildings. The rock was prized highly for those uses because of its extraordinary hardness, hence its durability, and also the uniformity of the rock quality throughout the whole structure.⁵⁹ The other physical source of value emphasised by the Company, was the proximity of the basalt resource to its markets.⁶⁰ These are the use-values inherent within the commodified form. However, as I noted in Chapter Four, business is indifferent to a particular use-value per se, rather, they are ultimately concerned with the chase after exchange-value. BHQ's valuation of the headland was narrow. It was, first of all, concerned with a singular extractive use, and secondly with exchange-values derived from the sale of that commodity. The basalt deposits had exchange-value in situ, and as a whole, because of the perceived future demand for the end products – from the potential revenue streams over the quarry's lifespan. A final preliminary point is that the headland was only of interest to the owners to the extent that it could generate profits. Profits could be derived either directly, through profitable sales of basalt aggregate, or indirectly, by contribution to the profitability of the downstream operations of the parent companies. Both of these factors were crucial in this case.

Obviously, a market valuation will only be fully articulated in the exchange process itself. Hence, the determination of a market value outside of that process will be an approximation. In this sub-section I set out a *series* of money-valuations of the Quarry that were proffered during the dispute. I shall begin with the lower estimates.

In 1986 Fulton Hogan and Palmers and Sons purchased the balance of ownership (50 percent) of Black Head Quarries for approximately \$250,000. This would suggest an overall value of \$500,000.⁶¹ It is important to note this figure as the subsequent period of dispute was characterised by an exponential rise in estimates of the quarry's market value. The next important sum on an ascending scale is that provided by the government valuation carried out in 1989 which breaks the estimate down as follows:

Table 6.1. Government valuation of Black Head Quarries 1989⁶²

Interest in stone:	Land value	\$350,000
	Capital value and trees	\$350,000
Interest in land:	Improvements	\$80,000
	Land value	\$50,000
	Capital and trees	\$130,000
Total		\$960,000

⁵⁹ *Dunedin Star* 7 June 1989.

⁶⁰ R. Cullen, 1991, "Discounting" pp. 1128. Although Cullen noted that there was no shortage of rock for quarrying in the area, for Dunedin is sited on the base of an ancient volcano, and the deposits of basalt were extensive.

⁶¹ R. Cullen (Lecturer in Economics, University of Otago), July 1990, Personal communication, Dunedin.

⁶² Valuation New Zealand, Valuation Roll Enquiry, Val Ref 27861 11000 & 27861 10900, Valuation undertaken 1 July 1989.

This figure corresponds with the Company's paid up capital of \$960,000.⁶³ It is not out line with the previous estimate when one takes into account the expansion in the operation between 1986 and 1989.

Most of the estimates that were alluded to within the conflict discourse were based in some way on the revenue streams that could be derived from the operation over its potential lifespan. In an earlier footnote I noted that in 1990 Dr Ross Cullen, a lecturer in resource economics at the University of Otago, undertook a research project into the economic valuation of the basalt resource at Black Head. Cullen's research is drawn upon extensively in my analysis of the negotiated settlement in Chapter Eight, but it is appropriate to use the first part of his analysis here to provide a nominal valuation of the resource. Cullen used the following figures⁶⁴:

Projected life of the quarry	90+ years
Output (1988)	192,000 tonnes
Retail value of the rock (1988)	\$12 per tonne
Costs	90-95 percent or approx \$10.80 per tonne ⁶⁵

On this basis the potential gross revenue from the quarry can be calculated by, first multiplying the lifespan of the quarry by the annual output, to derive the total output over 90 years ($90 \times 192,000 = 17,280,000$ tonnes), and then through multiplying this figure by the retail value per tonne ($17,280,000 \times \$12 = \$207,360,000$). But this figure obviously does not take into account the high costs of extraction (90 percent) and the relatively low profit margins returned to the Company. So, on the basis of historical margins the net revenue would be approximately 10 percent of the nominal sum ($=\$20,736,000$). This is a very high figure compared to the estimates presented above, and it is in fact grossly inflated because it does not take into account the temporal distribution of production over ninety years. An accurate valuation requires the discounting of future revenue streams as contained in Cullen's analysis. I will not, however, examine his calculations until I focus upon the substantive outcome of the conflict in Chapter Eight. But I have highlighted the approximate figure of \$21 m here because it approaches the order of magnitude of the Company's tactical valuations.

As will be made very clear in the narrative of the conflict contained in the next chapter, the decision-making process in the Black Head dispute was largely in the form of an informal series of negotiations – it was very much a bargaining process. It is not unreasonable to suggest that within a bargaining situation participants will exaggerate their arguments and positions for tactical reasons. In the Black Head conflict the Company's public estimates ranged between \$50 m⁶⁶ and \$90 m.⁶⁷ These figures were not only remarkably disparate from one another, they were vastly inflated compared to, (i) the \$500,000 and \$960,000 sums set out

⁶³ Black Head Quarries Ltd, March 1988, Form of Annual Return (for the 1987 financial year), Companies Office.

⁶⁴ R. Cullen, 1991, "Discounting" pp. 1123.

⁶⁵ It is important to note that the most significant cost in the production of aggregate was the transport costs (\$0.75 per tonne per kilometre). The Company frequently alluded to the fact that it was Black Head's proximity to the end users that essentially made it a profitable concern. This was true. However, the Company's assertion that there were no alternative sites available, was not true. *Ibid.*

⁶⁶ Jim Hunter (General Manager of Black Head Quarries Ltd.), 3 August 1990, Personal interview, Logan Point Quarry, Dunedin.

⁶⁷ *Listener & TV Times* 22 January, 1990, p. 103.

above, and (ii) even the nominal revenue calculation of \$21 m. There was no explanation as to how the inflated figures had been arrived at. The essential point that should be made here, and that will be reiterated throughout this study, is that while the Company's valuations were totally overblown, they were still used in the discourse to dismiss the possibility of either selling, relocating or even significantly constraining the Quarry operation. They were used to communicate the message to those seeking change, that the Company was not open to substantive negotiation.

BHQ's basic argument within the dispute was that the quarry was of considerable economic value. That value was said to derive from the physical qualities of the rock, its low extraction costs, and its proximity to its markets. It also derived not only from external sales but also from the use of the basalt in the parent companies' downstream enterprises. But the issue really centred upon the exchange value itself. A number of estimates were provided during the dispute. But as I will later show, the Company was in the strategic position of being able to stipulate what the quarry was worth, without having to reveal its own financial analysis, and it was also able to disregard any external assessments.

6.4. The Arguments for Preservation

The extraction of rock from Black Head necessarily incurred opportunity costs. Potential benefits from alternative patterns of use, and indeed non-use, were foregone. Some were lost forever and others as long as quarrying activity persisted. In the remainder of this chapter I focus upon the arguments for the preservation of Black Head that were articulated in the dispute. Those arguments were premised on the alternatives that would be foregone if the headland were to be destroyed. I split discussion into two subsections; the first of these discusses the broad 'conservation' arguments, and the second subsection deals briefly with the Maori relationship with the headland. One general point here, was that by time of the crux period of conflict in the late 1980s there had already been significant damage of the area, some of it reversible and some not. However, all of the following arguments were premised on the belief that the remaining natural character of the headland was worthy of protection.

6.4.(i) The Conservation Arguments

Unlike the Whanganui Minimum Flows Conflict that follows this study, the conservation arguments were not presented in any systematic way within the Black Head dispute (why that was so will be made clear in the following chapter). In this discussion I draw together the eclectic strands of argument that were articulated in the dispute. I do not list the arguments in any particular order of importance, although I will highlight those arguments that formed the nub of the conservation case.

The first strand of argument can be broadly labelled the intrinsic or natural values argument; the values inherent in, essential to, and naturally belonging to, the area.⁶⁸ Throughout the dispute the Friends of Black Head maintained that the headland was of value,

⁶⁸ Significantly, S. 2 of the *Conservation Act 1987* uses the term "intrinsic values in its definition of 'conservation'.

in and of itself, independent of whether or not people visited the area.⁶⁹ The notion of intrinsic values is a highly, indeed essentially, contested one in environmental philosophy.⁷⁰ Nevertheless, one does not have to subscribe to the idea of an ultimate 'self-sufficient' form of value to accept elements of this argument. The 'natural character of the headland' was referred to and the scarcity⁷¹ values of both the rock formations (see geological argument below) and the coastal ecosystem were stressed, and also the 'life support' and 'species value'.⁷² However, most of the arguments were articulated in terms of peoples' direct and indirect valuations of the area of the area.

The core arguments of the conservation case lay with what can be broadly labelled *landscape values*, the first type of which related to the naturalistic or scientific appreciation of both the geology and biota of the headland. At the time of the conflict there was a movement to identify and protect "a full cross section of the natural landforms, geological features and soil types which best characterise each part of New Zealand".⁷³ The criteria to classify potential sites ranked them according to their scientific and educational values, whilst taking into account the vulnerability of sites to "modification or destruction by human activity".⁷⁴ On the basis of these criteria a number of scientific organisations advocated the preservation of the basalt formations at Black Head. For example, the DSIR in Dunedin argued that "because the columnar basalts are such a notable feature of Otago coast volcanics, there is good reason for protecting examples in their various settings". They emphasised that none of the local examples "rival the spectacular outcrops of the Organ Pipes or Black Head".⁷⁵ A second organisation supporting the campaign for the protection of Black Head at both the national and regional level was the New Zealand Geological Society.⁷⁶ In a letter from the Society to the Friends they set out their position:

We consider that the columns at Black Head are a spectacular example of this geological landform, and that they are of outstanding scenic and educational value. Though not unique in the Dunedin area we believe they are of considerable scientific interest." ... "We would therefore support moves to restrict quarrying to the landward side of Black Head, to preserve the remaining columns, and to restore the area at present covered with debris from the quarry. We would support appropriate development and promotion of the basalt columns area so that public may have better access and enhanced appreciation of them."⁷⁷

The ecological arguments were less prominent in the conservation case. However, throughout the conflict Dr Johnson of the Botany Division was a vigorous advocate of the need to protect the remnant vegetation. He argued that preservation of those communities was justified on both scientific and educational grounds.⁷⁸

⁶⁹ Sue Maturin (Chairperson, Friends of Black Head), 2 September 1991, Personal interview, Dunedin.

⁷⁰ Indeed, it is taken by many to be *the* most important issue in environmental ethics. K. Parker, "Pragmatism in Environmental Thought" In A. Light, and E. Katz, (eds), 1996, *Environmental Pragmatism* Routledge, London, p. 34.

⁷¹ "Geologic formations are, of course, specific to sites, and as has been widely observed in resource economics, sites are finite in number and hence absolutely scarce." R. Cullen, 1991, "Discounting" p. 1121.

⁷² Sue Maturin (Chairperson, Friends of Black Head), 2 September 1991, Personal interview; Dr Peter Johnson (DSIR Botany Division, Dunedin), 22 February 1991, Personal interview, DSIR, Dunedin.

⁷³ B. Hayward, August 1989, "Saving the Landforms and Rocks" *Forest and Bird* Vol. 20, No.3, p. 25.

⁷⁴ *Ibid.*, pp. 25-26.

⁷⁵ P. Johnson, February 1986, "Black Head Near Dunedin" p. 3.

⁷⁶ Friends of Black Head, October 1989, "Black Head: The Conservation Case" p. 3.

⁷⁷ Geological Society of New Zealand (Otago Branch), 8 August 1989, Letter to the Friends of Black Head, Dunedin.

⁷⁸ P. Johnson, February 1986, "Black Head Near Dunedin" p. 5.

But it was the aesthetic arguments, namely the scenic values, which captured the public's attention. The headland was an imposing local landmark that could be seen from quite a distance away. However, the view from the landward side was dominated by the quarry operation. The scenic values were greatest on the seaward side, where the rock formations and native vegetation were to be found. The immense fluted cliffs and striking columnar formations were considered spectacular and awe inspiring by many, including the quarry owners themselves.⁷⁹ Standing at the foot of the headland was described as a "primal experience".⁸⁰

A crucial issue in terms of the aesthetic of the area and the options for preservation, was the issue of reducibility – ie. to what extent could the natural character of the headland be reduced to the value of individual components such as the 'Roman Baths' or the 'Dock'? The Friends stressed "the attraction and importance of the whole Black Head setting and not just the columns".⁸¹ This was partly because much of the aesthetic impact derived from the sheer size of the promontory, but there was also a strong sense that the formations were part of an integrated whole. They thus argued that retention of the central formations without their natural setting would see the columns "reduced to a mere curiosity", and as a result the "spirit of the place" would be lost.⁸² This point had great significance within the bargaining process, for it meant the protection of *all* the cliff faces in any agreement was the minimum acceptable outcome for the conservationists.⁸³

Considerable emphasis was placed upon the *spiritual* values of the area. An editorial in the Otago Daily Times observed that visitors are often imbued with a "mystical interest" in the area.⁸⁴ This sense of "wonder" and "awe" was the inspiration for a variety of artistic activities.⁸⁵ Lloyd Godman's photographic essay on the area was displayed in a 1986 exhibition titled *Secrets of the Forgotten Tapu*, which toured New Zealand and brought national attention to the plight of the headland.⁸⁶ Sculptors also described the formations as an incredible "sculpture garden", and painters tried to capture the ambience of the headland on canvas.⁸⁷

This leads to the next elements of the conservation case - the *recreation* and *tourism* arguments. Many of the science/natural history and various aesthetic arguments were predicated upon, or motivated by, people visiting the site. It was argued that the quarry operation deterred and diminished the utility of such uses in two key ways: First, because the area of greatest public interest was located on the seaward faces there were serious problems with access (hereafter the 'access question'). The headland was best viewed from a boat. However, it was an exposed stretch of coastline, which limited that means of approach. The primary access-way was from the south, along the beach and rocks from the south of the

⁷⁹ John Fulton quoted in *Otago Daily Times* 11 June 1988, "The Demise of Black Head" Feature article, pp. 12-13.

⁸⁰ *Listener & TV Times* 22 January 1990, p. 103.

⁸¹ *Otago Daily Times* 8 June 1989.

⁸² *Ibid.*

⁸³ Sue Maturin (Chairperson, Friends of Black Head), 2 September 1991, Personal interview, Dunedin.

⁸⁴ *Otago Daily Times* 17 February 1990, Editorial.

⁸⁵ Sue Maturin (Chairperson, Friends of Black Head), 2 September 1991, Personal interview; Neville Peat, (Dunedin writer, and core member of the Friends of Black Head) 1990, Personal interview, Ravensbourne, Dunedin, November.

⁸⁶ *Otago Daily Times* 11 June 1988.

⁸⁷ *Ibid.*

headland. The problem with that route was that the company owned the land down to the mean high tide mark and, moreover, actively dissuaded people from trespassing on their land. This meant that visitors approaching the formations via the coastline had to remain below this line. This in turn limited access to periods of low tide and to when sea conditions were relatively calm. However, the danger remained of being caught by the in-coming tide or being washed from the rocks by rising seas.⁸⁸ Furthermore, landward access was problematic, not just because of the trespass problem, but also due to the dangers of dislodged material falling from either the upper slopes or from the quarry itself. Both Black Head Quarries Ltd and mines inspectors from the Ministry of Energy stressed the dangers of passing beneath the cliff faces. On the one hand, the Mines Inspectorate was responsible for ensuring that the company ran a safe quarrying operation, and on the other hand, it was in the interests of the company to comply with safety standards to ensure that they remained in business (hereafter the 'safety question').⁸⁹

Other recreational uses also figured in the conflict: First, surfers held that some of the best waves in the country broke off the headland when the wind conditions were favourable.⁹⁰ Local, regional and national surfing championships had been held there over the previous ten years.⁹¹ However, by the late 1980s quarrying had already adversely affected the quality of the surf (namely, because the lowering of the headland meant that the offshore winds flattened the waves).⁹² Also, access to the beach caused much perturbation throughout the 1980s, due to both the hurried construction of an unsightly car park, and to a drain conveying wastewater from the quarry directly into the sea thus causing some discolouration.⁹³ There were also complaints about the dust and noise emitted from the quarry, and incidents of rocks landing in the water during blasting operations led surfers to argue for a "buffer zone" around the quarry;⁹⁴ Secondly, divers also expressed their concern over access to, and the adverse effect of spillage upon, the basaltic sea caves, large kelp forests and the abundance of aquatic life.⁹⁵ The Southern Sea Divers and the Otago Underwater Club both recommended to the Department of Conservation that the area be considered for marine reserve status; Finally, the area was valued as a leisure fishing spot although that activity was also hampered by the difficult access and the damage caused by the quarry debris.⁹⁶

The tourism arguments were predicated on the possibility that some or all of the above recreational uses could form the basis for viable commercial enterprise. By the closing stages of the conflict an adventure tourism operator was indeed running inflatable boat trips along that stretch of coastline to Black Head. However, for most of the dispute, the tourism arguments were being framed in terms of the potential of the resource. The Friends of Black Head made

⁸⁸ "Five people have drowned on the headland over the past 20 years" *The Dominion Sunday Times* 18 June 1989.

⁸⁹ Tony Baker (Mines Inspector, Ministry of Energy, Dunedin), 9 May 1986, Letter to Peter Johnson (DSIR), Dunedin.

⁹⁰ *Dunedin Star Midweek* 6 December 1989.

⁹¹ Department of Conservation, January 1988, Note for Black Head File 8/366/11, Dunedin.

⁹² *Dunedin Star Midweek* 6 December 1989.

⁹³ *Dunedin Star Weekender* 28 January 1990.

⁹⁴ *Otago Daily Times* 11 June 1988.

⁹⁵ *Dunedin Star Midweek* 6 December 1989.

⁹⁶ *Dunedin Star Midweek* 6 December 1989.

frequent references to comparable sites in both in New Zealand and overseas sites to justify and emphasise their claims. Geological features such as the Curio Bay fossil trees in Southland, the Moeraki boulders between Dunedin and Oamaru, and the Pancake rocks at Punakaiki in Westland, had all been given protected status because of their scientific, educational and aesthetic values. The formations at Moeraki and Punakaiki were popular and lucrative tourist stops.⁹⁷ Similar analogies were drawn with the Giant's Causeway in Ireland and Devil's Postpile in California, both were comparable volcanic features that had become world renowned scenic attractions.⁹⁸ No money valuations were placed on the alternative, and less environmentally destructive commercial uses.

As I observed at the beginning of this section some alternative uses (and non-uses/decisions not to use) were lost forever with the quarrying at Black Head, and others were foregone as long as quarrying continued in the vicinity. The conservation argument was that both actual and potential uses of the headland were being destroyed by the quarrying activity. The emphasis on *potential* uses inevitably dealt with uncertainties in some realms (such as the tourism potential), but on the whole there were a series of valuable alternatives to quarrying.⁹⁹ As I will show in the following chapter, the conservationists' focused on two issues – the provision of safe access, and the protection of the seaward periphery if not the headland as a whole. The former argument was, however, essentially dependent upon the success of the latter.

Finally, I would like to stress that I have included the arguments that were variously raised in the dispute. Disciplines such as environmental philosophy and resource economics have developed a host of value concepts that could be applied to such an issue (for example, the ethical obligation *not* to destroy one's property, the rights of future generations¹⁰⁰, or existence, option and bequest values¹⁰¹), nevertheless the issue here is the historical discourse of the Black Head conflict.

6.4.(ii) *The Maori Arguments*

The participation of Maori representatives, and their articulation of the historical relationship of the Tangata Whenua of Otago with the headland, are delicate matters that remain shrouded in uncertainty. In this discussion I will do two things; first, I will set out some contextual discussion about the participants and their standing, secondly, I will summarise the Maori arguments as they were expressed in the conflict.

The Maori arguments were presented, both independently and as part of the FoB, by two spokespeople; Peter Carter and Chris Baker of the 'Whanau-o-Otokia'. The Whanau was based in the small settlement of Brighton, a few kilometres south of the headland, and its members had "northern" origins, which meant that they were not immediately affiliated with the local

⁹⁷ P. Johnson, February 1986, "Black Head Near Dunedin" p. 3.

⁹⁸ Friends of Black Head, October 1989, "Black Head: The Conservation Case" p. 4.

⁹⁹ Sue Maturin (Chairperson, Friends of Black Head), 2 September 1991, Personal interview, Dunedin.

¹⁰⁰ O. Young, 1982, *Resource Regimes: Natural Resources and Social Institutions* University of California Press, Berkeley, p. 5; C. Wolf, 1995, "Contemporary Property Rights, Lockean Provisos, and the Interests of Future Generations" *Ethics* Vol. 105, July, pp. 791-818.

¹⁰¹ G. Kerr, and B. Sharp, (eds), 1987, *Valuing the Environment: Economic Theory and Applications* Centre for Resource Management, Lincoln University, Christchurch.

Ngai Tahu at Otakau on the peninsular proper.¹⁰² Ngai Tahu were not the first tribe to settle the region, but by the end of the 18th century they had effectively assimilated the Ngati Mamoe and Waitaha people who had occupied the area previously. Through intermarriage the whakapapa of those tribes became part of the whakapapa of Ngai Tahu to the point that they had no separate political identity.¹⁰³ However, by the time of the dispute there was an emergent political movement that was acting to manufacture a distinct Waitaha identity.¹⁰⁴ I mention this because the arguments of Carter and Baker were largely based on Waitaha and Ngati Mamoe creation myths. Moreover, the Otakau Ngai Tahu played no part in the dispute, although both Carter and Baker claimed that they had some support from the Tangata Whenua. They also claimed that all Maori treasured the headland, and that the spiritual values of the headland superseded any specific tribal interests.¹⁰⁵ There was, thus, some uncertainty, and the deafening silence from Otakau could have meant any number of things.

Nevertheless, both Carter and Baker presented the following arguments that were subsequently adopted in a good deal of the conservationists' advocacy: First, that the headland was originally known to Maori as Te Wai o Tinerau, and was later named Makereatu, and that the headland played an essential part in the creation myths of the area;¹⁰⁶ Secondly, that as I noted earlier, the area had been valued as a stone gathering site, and the basalt was prized in the manufacture of adzes and chisels due to its hardness; Thirdly, that the waters around the headland had been, and remained, a mahinga kai resource;¹⁰⁷ Fourthly, that a complex structure of rules governed any activity involving the headland. The nature of those rules was determined not only by pragmatic considerations regarding the stewardship of the resource, but also by the fact that the Maori saw the headland as a sacred, 'tapu', site. As a 'tapu' place Makereatu was an area where "people travelling to and from Otepoti [Dunedin] would stop ... to conduct cleansing rituals, removing tapu and clearing themselves either for the business at hand in Otepoti, or for their journey south".¹⁰⁸ Regardless of the wider relevance of those arguments within Ngai Tahu and beyond, for Carter and Baker, and the Otokia people the headland was of great cultural significance.

Finally, I would like to touch upon the position that they took towards the quarrying activity. Carter and Baker argued that the "continuation of quarrying is grossly offensive to tapu...".¹⁰⁹ As a consequence, the Maori position in the negotiations was more rigid than that of the others opposing the quarry's actions – it was a non-reducible position – and they consistently argued for the complete cessation of quarrying at the site.¹¹⁰

¹⁰² Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

¹⁰³ A. Anderson, 1998, *The Welcome of Strangers: An Ethnohistory of Southern Maori A.D. 1650-1850* University of Otago Press, Dunedin, p. 13.; S. O'Regan, 1992, "Old Myths and New Politics – Some Contemporary Uses of Traditional History" *New Zealand Journal of History* No. 26, pp. 5-27; H. Evison, 1993, *Te Wai Pounamu* pp. 7-10.

¹⁰⁴ S. O'Regan, 1992, "Old Myths and New Politics" p. 7.

¹⁰⁵ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

¹⁰⁶ The re-naming of the headland apparently symbolised the joining together of the Waitaha and the Kati Mamoe peoples. "Makereatu means 'to leave a seed' and the name refers to the time when the seed took hold and the two people became one." Friends of Black Head, 1989, "Black Head a Treasure Worth Saving" Pamphlet, Dunedin.

¹⁰⁷ *Critic* 18 April 1989, p. 3.

¹⁰⁸ Friends of Black Head, 1989, "Black Head a Treasure Worth Saving".

¹⁰⁹ *Otago Daily Times* 16 February 1990, p. 1.

¹¹⁰ *Ibid.*

6.5. Conclusion

In this chapter I have: Provided a basic description of Black Head, the volcanic formations and the specific ecology that gave it its special natural character; Outlined the history of quarrying at the site and, significantly (as will become apparent as the study progresses) the unique bundle of use rights that enabled extraction; described the basic pattern of quarrying activity and the consequent damage that use had and would have continued to have had upon the natural character of the headland. For the purpose of serving the analytical framework, I provided some background information on the business enterprise at the heart of the dispute such as its ownership structure, strategic function and resources, especially in the context of the Dunedin economy; Finally, I went on to set out the basic arguments (which will be developed further over the next two chapters) both for and against either the quarrying activity per se, or the particular scale and form of that activity. As a preliminary observation, the arguments for quarrying were ultimately based on money values. The arguments against quarrying were mostly on the basis of non-commodified forms of value, and in the few instances where commercial arguments were presented, they were in terms of potential uses and no projected figures were presented.

The Fight for Black Head

7.1. Introduction

The object of this chapter is to describe the process of conflict from its beginnings in the mid-1980s through to its culmination in 1990. Two sets of issues are intertwined throughout: First, there are questions concerning the identity and status of the participants. I have already made reference to a number of groups involved in the conflict and more information is provided here about those groups and about groups and individuals not previously mentioned (Table 7.1. lists the actors involved in the dispute); And secondly, there is the focus upon the process of the conflict between the different actors.

Discussion is structured on a chronological basis and the chapter has three main sections. Section 7.2 discusses the gradual emergence of the issue between 1985 and 1989. Section 7.3 covers a much shorter time frame covering about 6-9 months during 1989. Conflict escalated during that period, leading to significant changes in the strategic options facing the Company, and ultimately providing a basis for the final set of negotiations. And finally, section 7.4 covers the final negotiations during late 1989 and the announcement of a negotiated settlement.

7.2. The Emergence of Conflict: 1985-89

By late 1985 it was evident that the damage to the rock formations at Black Head was increasing rapidly. Lloyd Godman, a local photographer who had previously raised his concerns about the impact of the quarry operation, renewed his efforts towards gaining protection for the headland. He approached DSIR botanist Dr Peter Johnson who authored a 1982 scientific report (see 7.1.(i)). Their discussions resulted in an updated and expanded paper produced by Johnson, which went beyond documenting the botanical features of the promontory.¹ The report provided a wider discussion of the threat to Black Head from quarrying activity, encompassing issues such as the significance of the geological and botanical features in terms of the scientific and amenity values of the area; outlining the

¹ Peter Johnson, February 1986, "Black Head Near Dunedin: A Case for Preserving Features of Scenic, Geological and Botanical Interest" Unpublished report, Botany Division, DSIR, Dunedin.

physical impact that basalt extraction had upon the feature; and finally, going a step further by setting out a series of specific recommendations for the conservation of what he saw to be the most important parts of the headland.² The significance of the report was threefold: First, it dealt with the issue in a more comprehensive manner than before, clarifying the arguments for preservation as they presented themselves at that date, and suggesting a possible solution to the problem. Secondly, the report was notable in that it was an unconcealed exercise in conservation advocacy by a representative of a state agency. And, thirdly, it provided a basis for a new phase in the dispute following the change in ownership of the quarry.

Table 7.1. Individuals and Groups involved in the Black Head Conflict 1985 – 1990

	Groups	Key Personalities
Business Interests	<ul style="list-style-type: none"> • Black Head Quarries Ltd. (BHQ) • Fulton Hogan Holdings Ltd. • Palmer and Sons Ltd. 	John Fulton, Jim Hunter
State Actors	<ul style="list-style-type: none"> • Department of Lands and Survey – 1987 • Department of Conservation (DoC) 1987– • Mines Division – Ministry of Energy – Dec. 1989 • Energy and Resources Division – Ministry of Commerce 1989 – • Silver Peaks County Council (SCC) – Oct. 1989 • Dunedin City Council (DCC) 	Robin Thomas, A Perrett Jeff Connell John Walrond, D Butcher Murray Grimwood, Mick Robertson, Les Cleveland Richard Walls
Opposition Groups	<ul style="list-style-type: none"> • Native Forest Action Council (NFAC) • Maruia Society • Whanau o Otokia – Brighton Maori Committee • Friends of Black Head (FoB) 	Sue Maturin Peter Carter, Chris Baker Neville Peat, Peter Johnson, Lloyd Godman

Johnson outlined what he saw as a 'minimal reserve area'. The line enclosed the southern periphery of the headland, an area that incorporated most of the geological formations as well as the botanical communities of the greatest interest. However, conspicuous by their absence were the eastern bluffs as well as the rest of the coastal perimeter of the headland. Protection of the whole headland did not seem to be a necessary or realistic option. Yet this position is understandable if one considers the fact that the submission was compiled with little knowledge of the 'non-reducible' nature of the Maori claims, as well as the low levels of public awareness and interest at that early stage in the dispute. The emphasis was upon what was seen to be an *achievable* solution.³

The recommendation made by the paper was that "the Otago National Parks and Reserves Board pursue this case for preservation with the landowners, Black Head Quarries Ltd".⁴ However, pending any official action upon the report, circumstances changed considerably when BHQ was subject to a change of ownership. As I noted in the previous chapter, Fulton Hogan Holdings Ltd and Palmer and Sons Ltd increased their investments in

² Ibid.

³ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

⁴ Peter Johnson, February 1986, "Black Head Near Dunedin".

the quarry. Each of the companies now held a 50 percent interest in the quarry. Conservation advocates were back to square one in terms of establishing a dialogue with the Company.

Johnson's report did not itself stimulate any immediate official action; it "just seemed to sit there for a while". However, by mid-March a number of options were mooted for the protection of the area.⁵ First, as advocated by the DSIR report, the Department of Lands and Survey could possibly negotiate with the Company to purchase the area, or part thereof, to accord the headland with scenic reserve status. This option was contingent upon a willingness to sell on the part of the Company, a willingness and ability to pay on the part of the relevant state agency, and ultimately, the negotiation of a suitable price. The second option was to explore the possibility a voluntary conservation covenant.⁶ This could be pursued either by the Department of Lands and Survey under the *Reserves Act 1977*, or alternatively, by the Queen Elizabeth the Second National Trust, under the *QE II National Trust Act 1977*. Either way, the covenant option would be consequent upon the voluntary action of the Company. Motivation for such a move would necessarily be independent of any direct fiscal remuneration for the quarry enterprise. However, it was to be mid-1986 before Lands and Survey approached the Company's new management.

During early May, two representatives from Lands and Survey, Chief Ranger Perrett and Reserves Ranger Stewart, met with John Fulton of Fulton Hogan Holdings, and Jim Palmer of Palmer and Sons. The purpose of the meeting was to discuss the possibility of formally protecting the Black Head features. During the course of the meeting Company representatives indicated that it was the Company's intention to lower the headland through continued extraction over a period of 50-100 years.⁷ They emphasised that this activity would preclude any provision of safe access to the formations. The Company also made it clear that protection of the coastal scrub would be impracticable, and that loss of revenue through the protection of the area would amount to an estimated \$50 million. The only concession they would make was a verbal assurance that "every care will be taken to protect the Roman Baths and examples of columnar jointing from damage by spillage".⁸ The Company was unwilling to acquiesce on any of the proposals made by the conservationists.

Following this, the approach taken by the private conservationists and Lands and Survey was to continue placing pressure upon the Mines Division of the Ministry of Energy to produce a management plan for the quarry in conjunction with the quarry owners.⁹ By mid-June the essence of a plan was revealed in a local newspaper.¹⁰ The Company had

⁵ *Dunedin Star Weekender* 9 March 1986.

⁶ "A statutory covenant is an agreement between a private landowner and some representative body of the state, to place a restriction on his/her land, which will govern its future use for a fixed period of time, or in perpetuity. The owner continues to manage the land in accordance with the conditions of the covenant, and the administering body becomes a mere overseer to enforce the covenant, for its term." V. Edwards, 1988, "Harnessing Private Benefits for the Public Good: A Political Economy of Statutory Covenants and their Effectiveness in Protecting Conservation Values on Private Land" MSc Thesis (Resource Management), University of Canterbury.

⁷ D. Wakelin (for the Commissioner for Crown Lands), 14 May 1986, Correspondence to Peter Johnson, DSIR, Dunedin, Lands and Survey Reference 8/366/11.

⁸ *Ibid.*

⁹ Native Forest Action Council, 10 November 1987, "Black Head in Need of Protection" Submission to Department of Conservation.

¹⁰ *Dunedin Star Midweek* 11 June 1986.

agreed to make use of a hydraulic back actor which, following the completion of blasting would drag the rock back thus preventing debris from spilling over the seaward periphery of the headland and down onto the rock formations.¹¹ In addition, it was reported that the Company was "also prepared to rectify any damage caused in the past and to accept responsibility for the long term preservation of the feature".¹² At face value, it seemed the Company had some public motivations, ie. that they were concerned about the social costs of their actions. The Mines Division and the Company were by this stage very concerned about the danger posed by members of the public moving within close proximity of the quarry workings. A serious accident would have the potential to bring into question the practicability of operating a 'safe quarry' under the then existing conditions. The safety question was a direct threat to the quarry's viability. By offering to provide safe access after an initial period of "possibly ten years", the Company was attempting to temporarily placate the conservationists whilst ensuring the continuation of basalt extraction in the vicinity of the seaward slopes.¹³ Justification for this proposal was made through arguments such as the following, made by the local Mines inspector; "the public good is better served by working towards the common objective of safe public access and minimising of lost basalt reserves at the quarry".¹⁴ Allusions to the public interest and the economic wellbeing of the region were thought to vindicate the loss of any alternative values provided by the area.

Casting more doubt on the authenticity of the Company's expressed motivations, was the fact that not only had the scale of the operation increased since the change of ownership, but quarrying activity had intensified above the seaward faces, with a greater volume of rubble spilling down into the Roman Baths area.¹⁵ Not surprisingly, the conservationists looked upon the Company's conciliatory gestures with some scepticism. The campaign for formal protection of the features continued, and no definitive management plan was produced during the 1986-1987 period.¹⁶

At this point the conservationists had yet to organise themselves into any sort of formal group. The campaign for the preservation of Black Head was dependent upon a number of concerned individuals, with each person acting upon their own initiative. The principal reasons for this diffused support, was a fundamental lack of awareness in the local community about the existence of the features, and the potential threat that the quarry posed to the headland. Hence, the crucial task was for the conservationists to address this information gap. The most significant attempt to do this was made by the same photographer who had been a prime mover in the dispute from its very inception. Lloyd Godman had devoted a considerable amount of time to photographing the area over a number of years. The culmination of his labour was the staging of an exhibition entitled *Secrets of the Forgotten Tapu*. The exhibition had the dual purpose of both presenting a collection of artistic works in their own right, and also communicating a political message

¹¹ Tony Baker (Mines Inspector, Ministry of Energy, Dunedin), 9 May 1986, Letter to Peter Johnson (DSIR), Dunedin.

¹² *Dunedin Star Midweek* 11 June 1986.

¹³ Tony Baker, 9 May 1986, Letter to Peter Johnson (DSIR), Dunedin.

¹⁴ *Dunedin Star Midweek* 11 June 1986.

¹⁵ Native Forest Action Council, 10 November 1987, "Black Head in Need of Protection" Submission to Department of Conservation.

¹⁶ *Ibid.*

about Black Head. The exhibition gained national attention as it travelled to major centres and was a successful catalyst for discussion about the plight of the headland. The exhibition was also the subject of a considerable number of reviews and notices that featured in the media.¹⁷ The result was the creation of a level of awareness and interest that put BHQ under increasing pressure, as well as creating public demand for more substantive action on the issue, on the part of the relevant state agencies.

The Company's approach to the problem during this period had been reactive. Their interests were well served as long as the preservation of Black Head remained a relative non-issue in the region. In the pursuit of their interests, the Company chose to play a passive role, meeting accusations either by firmly denying their authenticity or by disregarding them completely. For example, in response to questions from a prominent local conservationist John Fulton stated that: "Black Head Quarries is *not* a Fulton Hogan operation, it is a separate Company". While this statement held some truth in that BHQ was an associate Company, the thrust of the statement was deceptive – Fulton Hogan did hold a 50 percent share in the operation.¹⁸

In the broader context, the latter part of 1986 was a period of considerable flux for the environmental administration with the dissolution of a variety of government departments, and the amalgamation of conservation functions under the umbrella of the Department of Conservation (DoC). The Department of Lands and Survey was subsequently caught up in this restructuring. For a while at least day to day problems, such as the Black Head dispute, took a back seat to organisational questions. It was not until well into 1987 that the newly established Department began to tackle the issue.

By early 1987 the Dunedin offices of DoC were receiving a considerable number of enquires from members of the public with regard to the intensification of quarrying activity at Black Head, and the highly visible impact that it was having upon the headland. DoC was being asked "if they were concerned about the spillage?" and if so "what were they going to do about it?".¹⁹ To members of the staff at DoC it was becoming evident that the dispute had the potential to become a major issue. Indeed, the newly appointed District Conservator for the Dunedin area, Robin Thomas, had previously had the issue brought to his attention by Jim Hunter (of Palmer and Sons Ltd.) during 1986, when Thomas was still Ranger in Charge of Stewart Island. Jim Hunter had made his concerns about the issue known, and was clearly worried about the future difficulties posed by the still nascent conflict.²⁰ In response to this pressure, and in the context of the new institutional framework, DoC approached the problem tentatively.

DoC's primary task was to identify the role it was going to play in the dispute, that is, if it was to play any active role at all. The barriers facing the organisation were first, a lack of knowledge regarding the substantive content of the issue, and secondly, the absence of precedent upon which to base their decisions. Despite these obstacles the legal mechanisms

¹⁷ *Otago Daily Times* 20 October 1986; *Dunedin Star Weekender* 19 October 1986; *Christchurch Star* 27 November 1986; *Christchurch Press* 26 November 1986; *Christchurch Press* 29 November 1986.

¹⁸ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin.

¹⁹ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

²⁰ *Ibid.*

available to DoC were quite explicit. The need was for the Department to examine the dispute against the backdrop of requirements and options set out in its legal mandate.²¹ Having made the decision to tackle the issue and needing to “know the ground before it did anything,” DoC set about the task of providing itself with a comprehensive information base. However, because of the demands of the organisation’s establishment process the initial research exercise was stretched out over three months during 1987.²²

The Conservation Department had two major roles set out in its mandate. The first was the legal administration of the conservation estate, and the second a wider advocacy role, where the Department was to advocate for the conservation of a broad range of natural and historic resources.²³ In the case of Black Head, it was logical for DoC to commence with an examination of its legal position. That is, the Department had to ascertain whether or not it had any statutory obligations with regard to the headland. It soon became clear to DoC that despite the destructive impact of the quarrying activity, the Company seemed to be operating within the law due to the idiosyncrasies of the rights structure that enabled basalt extraction. The one practicable option open in terms of the Department’s management function was to take prosecution action against the Company for the spillage of material onto the foreshore, an option which could be pursued under S. 242 of the *Harbours Act 1950*. However, at that stage no spillage had in fact gone beyond the Company’s land. The Department would have to approach the issue purely in terms of their advocacy function.²⁴

The approaches open to those seeking preservation of the headland fell into two categories; to seek the cessation of quarrying activity *per se*, or to pursue options that would mitigate the impact of extractive activity. The first options explored by DoC representatives when they approached the Company were in regard to the former category. DoC asked the Company representatives whether they would be willing to sell the headland. Purchase of the headland would facilitate protection by enabling the Department to grant the area reserve status pursuant to either the *Reserves Act 1977*, or the *Conservation Act 1987*. The Company’s response was that they would only be willing to sell their interest if they were offered a “realistic market price”. The sum discussed was “somewhere in the order of \$30 million”. The justification was that in addition to the initial costs of purchasing the operation, the Company had spent \$1 million on plant over the course of the previous year, and as was to be expected “it was not going to be a matter of the Company walking away”.²⁵ This sum was well beyond any costs envisaged by the Department. The setting of such a high price served to communicate to the conservationists the extent of the Company’s resolve, making it quite clear that the *raison d’être* for the quarry operation lay with the production of surplus value, and that the Company considered the Black Head quarry to be a strategically significant asset. Consequently, avenues other than acquisition of the area needed to be explored.²⁶

²¹ *Conservation Act 1987* The Act established two main roles for the Department of Conservation. The first was the management of the conservation estate, and the second was the mandate to advocate for natural and historic resources. (copy from Whanganui)

²² Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

²³ *Conservation Act 1987*.

²⁴ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

²⁵ *Ibid.*

²⁶ *Ibid.*

It was clear that any options for preservation which demanded the mitigation of the negative impacts of quarrying activity, required as a logical prerequisite some change of extractive method on the part of BHQ. Thus, before any options could be suggested, DoC representatives needed to have some knowledge of the methods utilised by the Company for the extraction of the basalt resource. This information would also have to be ascertained with regard to past, present, and future approaches to the Black Head operation. Hence, one of the main topics on the agenda during the first meetings between DoC representatives and the Company executives was the issue of quarry procedure. As noted earlier, the original quarry operation centred upon a small area on the inland crest of the headland, and damage to the seaward periphery had been minimal. However, following the 1986 purchase, the quarry operation changed not only in scale, but also in terms of the extraction methods. The Company had begun to systematically lower the headland in 15 m steps, as it sought to quarry the basalt in the most cost-efficient manner possible.²⁷

The conservationists had also been demanding a definitive statement on the quarry's plans for the use of the area. The management plan issue raised its head once again due to the failure of the Mines Division and the Company to produce any such document. The call for a management plan to be made public arose for a variety of reasons. Before the process of criticism, discussion and the suggestion of alternative options could occur, there needed to be some terms of reference based on fact. It was thought that the management plan would provide this reference point. In addition, the management plan served as a focus for the conservationists, in terms of making their interest known, placing pressure on the state agencies and the Company to work towards a resolution.²⁸

The Mines Division's response to the pressure was to re-affirm their intention to complete a draft management plan, stressing also that there was no need for DoC to become involved in the issue at that point in time (July 1987).²⁹ However, by mid-August there had been little progress in the drafting of the document and DoC had to yet again press the Ministry of Energy for a response. DoC had repeatedly offered their services to the Mines Division to assist with the compilation of the plan and became increasingly impatient due to the pressure placed upon them by interest groups such as the Native Forest Action Council.³⁰ This interchange had been going on between DoC's Regional office and the Mines Division of the Ministry of Energy, yet at the same time DoC's District Conservator Robin Thomas had also been tackling the issue with the Company.

Thomas himself thought DoC was really "trying to achieve the unachievable".³¹ The Company appeared resolute in their position, they had a legal right to mine the area, they had a substantial financial investment in the quarry, and as such there was little to motivate them to forfeit any potential material benefits offered by the operation. By contrast, DoC

²⁷ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

²⁸ Heather Muir (Committee Member, NFAC), 23 March 1991, Personal interview, Dunedin.

²⁹ John Walrond (Inspector of Mines and Quarries), 13 July 1987, Letter to Regional Manager Department of Conservation Dunedin, Ministry of Energy, Dunedin.

³⁰ A. Perrett (for the Regional Manager, Department of Conservation, Dunedin), 10 August 1987, Letter to John Walrond Inspector of Mines, Dunedin. Also: A. Perrett July 1987, (for the Regional Manager DoC), Internal memorandum to Robin Thomas (District Conservator, Dunedin), "Mines have dragged the claim on this issue".

³¹ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

had no negotiating power, hefty concessions in dollar terms were not feasible, and there were “no carrots for them to dangle”.³² Nor were there any apparent sanctions that could be employed by the state against the Company, at least not while the Company continued to operate within the law. Consequently, the approach taken by DoC was to make it clear to the Company that beyond the minimalist obligations of their legal right, there were significant ethical obligations. DoC’s responsibility was to moderate the Company’s activities by reference to the concerns of the opposition. The problem facing the Department was founded in the necessity that they retain the Company’s ear, while making sure they still managed to convey their fundamental opposition to aspects of the operation. Under the circumstances, this was a fine line to tread.³³

The first meetings between DoC and the Company took place in the boardroom of Fulton Hogan Holdings, with a significant number of the Company’s directors in attendance. Robin Thomas recalled facing “a whole line of grey suited individuals”, and his initial reaction was to feel somewhat daunted at the prospect.³⁴ In the event, it seems that for the conservation case this was probably a good thing, ie. there were “many more ears in the room”.³⁵ These meetings were not so much about stating positions as about trying to promote some basic understanding of the prevailing motivations of all involved. Thomas made use of the various specialists available to him. The Conservancy scientists detailed the basic characteristics of the conservation and recreation values of the area. At the same time the DoC representatives were attempting to acquaint themselves with the basic tenets of the Company’s situation. The outcome of these initial talks was not any substantive progress in the pursuit of a resolution, but rather the laying of the foundations for further dialogue between the groups.³⁶

DoC’s next move was to float a variety of proposals with BHQ. The Company had from a very early stage committed itself to the intensive and systematic diminution of the headland. As noted previously, the promontory was to be lowered in 15 metre steps down to the 30 m level. Any concessions to the conservation of the rock forms would be made in terms of attempting to limit the inevitable spillage that would occur in such circumstances.³⁷ In response to this, the question asked of the Company by Thomas was “why should the Company now get themselves involved in things that may never need happen?”³⁸ The point at issue was the seemingly steadfast position being taken by the Company and the potential it had for ruling out any future options. Consequently, the first proposal made by Thomas was an attempt to get the Company to adopt a technique that would not rule out future options. It involved the adoption of a minimum impact approach to the operation. The method mooted by Thomas was that the Company cease its current approach of taking layers off the headland by moving to the seaward faces and then moving back towards the centre of the quarry. He proposed the quarry engineers extract the rock from the inland side

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin.

³⁸ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

instead. By taking this option the Company could avoid the necessity of tackling the conservation issue for a substantial period of time.³⁹ The Company dismissed his solution as untenable. The proposal was made in discussions between Thomas and Fulton. Fulton, despite his own lack of knowledge regarding quarry method, rejected the suggestion on the grounds that it would be impracticable to quarry in such a way. Yet most of the other quarries in the Dunedin area used the same approach suggested by Thomas. A more feasible reason for the Company's reluctance was in regard to the very low extraction costs incurred by the method used by BHQ. Also, there were other psychological barriers involved, as the Company inevitably would object to having aspects of their operation dictated by other actors. The discussions on quarry method resulted in no immediate changes.

The second issue raised by DoC concerned the end use of the basalt from the quarry. Thomas questioned the efficacy of using what the Company repeatedly described as rock of exceptionally high quality for the same end uses as so called "inferior gravels".⁴⁰ His contention was that by the profligate use of the rock for "low grade jobs" the Company was failing to utilise the rock in the most efficient manner possible.⁴¹ He suggested that a small-scale operation concentrating on producing "high quality building material" would be far more appropriate.⁴² The Company dismissed this particular option, emphasising their already considerable investment in the quarry in terms of plant and machinery, and arguing that not only would they have to move into another market for their product, but they would effectively have to create that market – an option that they were unwilling to pursue.⁴³ Underpinning the Company's response was their belief in the sovereignty of the market; the "demand for their product was there, and as a business enterprise they would respond to the demands of the consumer".⁴⁴

The atmosphere in the early meetings between DoC and the Company was particularly strained. The Company representatives were polite and courteous to DoC, yet they were unwavering in their position with regard to Black Head. Whilst continuing to express their willingness to "listen to reason", their basic stance remained "if you want it, you buy it".⁴⁵ For John Fulton, the discussions did not constitute 'negotiations' as such. However, it made sense in public relations terms for the Company to be *seen* to be listening.⁴⁶

Local interest groups also established some direct contact with the Company around this time. Throughout the dispute Company was reluctant to deal with the private conservation groups. The Company made it quite clear that their "real concern has been with DoC, as they stand for the whole community".⁴⁷ However, the rationale for this stance

³⁹ Ibid.

⁴⁰ Lloyd Godman, 14 August 1990, Personal interview, Dunedin.

⁴¹ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin.

⁴⁵ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

⁴⁶ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin. Also: Jim Hunter (General Manager, Black Head Quarries), 3 August 1990, Personal interview, Logan Point, Dunedin.

⁴⁷ Ibid.

was based not only upon the nature of the organisation's constituency, but also with regard to the way the various groups advocated their positions. BHQ considered DoC a more *rational* and *realistic* agent, with whom they could work constructively towards a "reasonable" solution.⁴⁸ The Company's ambivalence towards the private conservation groups resulted in an atmosphere of mutual suspicion and conflict. Despite talking occasionally with those groups, the Company felt "that if they gave away one inch, the conservationists would want three".⁴⁹ There were no means by which the conservationists could force the Company to sit around a table with them, and the Company could determine whom they either would or would not deal with.

By November of 1987, the coalition of conservationists that became the Friends of Black Head (FoB) began to form. Although initiated by Lloyd Godman, the group soon came to be guided by Sue Maturin, who was at that time the chairperson of the Otago/Southland branch of the Native Forest Action Council (NFAC),⁵⁰ an organisation with a tradition of mining protest.⁵¹ The coalition was comprised of a small collection of representatives from various organisations. Each of these organisations, as well as a number of interested individuals, were motivated by differing perceptions of what they saw to be the value of Black Head. However, all were in agreement about their ultimate goal, which was the conservation of the headland. Over the next year and a half the size of the group oscillated around a core of between six to twelve individuals. The nature of the campaign over that period lent itself not so much to mass participation, but to the intensive involvement of a few devoted actors. Their initial collective action focused upon the gathering of necessary information, and the lobbying of both the Company and government.⁵² Finally, an integral element of the FoB was played by the Maori representatives Peter Carter and Chris Baker of the 'Whanau o Otokia' (see 6.4.(ii)). Although the FoB did not perceive it as their role to be the advocates for the Maori position, the two groups often acted in conjunction with one another.⁵³

During 1987 the conservationists had approached John Fulton "every three months or so" to ask him questions about the quarry.⁵⁴ However, by November Sue Maturin, provoked by the increasing damage to the Roman Baths area and by the evident lack of progress made by DoC, organised a meeting between the newly established coalition and the

⁴⁸ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin.

⁴⁹ Jim Hunter (General Manager, Black Head Quarries), 3 August 1990, Personal interview, Logan Point, Dunedin.

⁵⁰ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

⁵¹ Neville Peat, 1990, Personal interview, Ravensbourne, Dunedin, November.

⁵² For example: The preparation of a submission to DoC by the NFAC set out the arguments and options for conservation. The options at that time were seen to be; "(1) That the Department of Conservation agree to purchase the headland and create a scenic reserve over the area formerly recommended by Dr Peter Johnson in 1986; (2) The Department of Conservation negotiate with the company to secure a protective covenant over the area recommended for a scenic reserve; (3) The Department of Conservation and Mines Division negotiate with the company to create a buffer zone around the rim of the cliff above the coastal features to prevent spillage of quarry debris over the sides." With the added qualification "that all of the above options should incorporate a requirement that the company restore the Roman Baths." (Although, it is important to point out that even at this stage the Eastern Bluffs were not incorporated in the conservationists claims). Sue Maturin (Chairperson Otago/Southland branch NFAC), 1987, Submission to the Department of Conservation, Dunedin, November 10.

⁵³ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

⁵⁴ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview.

Company.⁵⁵ The meeting was held at the offices of Fulton Hogan Holdings on December 4. In attendance were Chris Baker and Peter Carter (Whanau-o-Otokia), Sue Maturin (NFAC), Peter Johnson (DSIR), Lloyd Godman, Rod Rust (South Coast Board Riders Association), and at the invitation of Peter Johnson, Les Cleveland (a Dunedin businessman and local body politician, active conservationist as well as personal friend of John Fulton).⁵⁶ The conservationists put their points of view to John Fulton. Fulton listened to the arguments, and in response reiterated the Company's position and emphasised the contribution it made to the local economy. He remained non-committal about measures the Company could take to appease the coalition. To the conservationists Fulton came across as being slightly hostile in his manner.⁵⁷ The impression received by Robin Thomas of DoC was that the original meetings such as this one between the environmental groups and the Company, most probably served to harden the Company's resolve; as the Company felt that they were being unjustifiably targeted by the coalition members.⁵⁸

The negotiation framework was already determined at a relatively early stage in the dispute. Any outcome regarding the future of the headland would be contingent upon the Company's assent, with the Company exercising the power to determine who they were going to negotiate with, if indeed they were to agree to negotiate at all. Under the circumstances it was to mean that DoC was to be the bargaining agent and advocate for the conservation case in any negotiations with the Company. The private conservation groups were to be effectively excluded from any direct participation in this process. However, the strategic implications of this exclusion proved to be quite convenient in terms of enabling DoC to carry out its task. That is, DoC could play itself off against the more extreme claims made by the conservation groups. Robin Thomas noted that DoC did not have to ask for much less than the FoB before their claims sounded quite reasonable to the Company.⁵⁹

As the dispute carried into 1988, it was apparent that positions were hardening, with no real progress being made towards a resolution.⁶⁰ In response to this impasse, coalition members approached DoC in an effort to procure an undertaking that the Department would continue to "actively pursue the protection of the land and sea values of Black Head".⁶¹ Having obtained this, the task became one of ascertaining the means by which the goal of preservation could be sought. The conservationists decided to approach the problem at a number of levels. First, following their previous efforts at furthering the Company's understanding of their motivations and goals, the conservation groups arranged an orientation tour of the basalt formations. This took place in late January, with John Fulton and Churchill Walls (Quarry Manager) attending as representatives of the Company. For both of these men it was the first time they had seen the formations, other than from the vantage point of looking down from the edge of the quarry. Representatives of the state

⁵⁵ Sue Maturin (Chairperson Native Forest Action Council), 17 November 1987, Letter to John Fulton, Dunedin.

⁵⁶ Peter Johnson, 4 December 1987, Notes taken at meeting, Fairfield, Dunedin.

⁵⁷ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

⁵⁸ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

⁶¹ Tony Perrett (Principal Conservation Officer), 13 January 1988, Conservation Department File 8/366/11, Dunedin.

agencies and the coalition also attended, and consequently the atmosphere during this trip although remaining civil, was apparently quite tense. A notable feature of interaction throughout the dispute was that the more acrimonious meetings occurred when more than two parties were involved.⁶²

Secondly, it was decided that concomitant with activities such as the inspection tour, DoC would continue to negotiate with the Company directly.⁶³ The Company was amenable to this option, and agreed to meet with Robin Thomas to discuss the matter further.⁶⁴ To help facilitate this task DoC sought the assistance of Les Cleveland, the Dunedin businessman and conservationist mentioned above. It was hoped that by working with Cleveland they could possibly bridge part of the abyss that stood between the various parties to the dispute.⁶⁵ And finally, in light of the stalemate, and the resultant need to provide the Company with greater incentive to negotiate constructively, DoC once again looked closely at the possibility of bringing a prosecution against the Company under the *Harbours Act 1950*.⁶⁶

Meanwhile, as the campaign intensified, the extent of public awareness continued to increase.⁶⁷ As well as seeking media attention, the conservationists were targeting specific groups, such as the directors of the relevant companies, with letters setting out their arguments and demands.⁶⁸ However, the result was that BHQ felt under siege from the conservationists, thus fuelling their intransigence on the matter. The Company became much less open in discussion, deciding instead to carry on quarrying the basalt regardless of public opinion.⁶⁹ Recourse to legal mechanisms in the pursuit of preservation seemed more inevitable as the year progressed.

7.3. The Threat of Litigation and the Legal Proceedings

The Company had thus far approached the dispute as if it were a zero-sum problem. That is, in terms of tackling the substantive content of the conflict, BHQ played out their role as if they were faced with a simple binary choice: there would be a winner and a loser, with little room in between for cooperative strategies. Moreover, while the Company remained in the dominant position this situation would prevail. This section examines the process by which the Company was encouraged to abandon its uncompromising stance in favour of a more conciliatory strategy. Before embarking upon this task it is useful to introduce the concept of a participant's BATNA (Best Alternative to a Negotiated Agreement).⁷⁰

⁶² Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

⁶³ Tony Perrett (Principal Conservation Officer), 13 January 1988.

⁶⁴ John Fulton, 3 February 1988, Letter to Sue Maturin, Dunedin.

⁶⁵ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

⁶⁶ Tony Perrett (Principal Conservation Officer), 13 January 1988.

⁶⁷ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

⁶⁸ *Otago Daily Times* 11 June 1988. Also: Sue Maturin (Friends of Black Head), 24 May 1988, Letter, to the Directors of Black Head Quarries Ltd., Fulton Hogan Holdings and Palmer and Sons Ltd., Dunedin.

⁶⁹ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

⁷⁰ See R. Fisher and W. Ury, 1987, *Getting to Yes: How to Negotiate to Agreement Without Giving In* Arrow Books, London, pp. 101-110.

Within a bargaining situation, a participant's bargaining strength is contingent upon factors external to the negotiation process itself; "one's power within the negotiation depends on the impact of possible failure of the negotiations".⁷¹ Hence, it follows that "the consequences of non-agreement determine the relative attractiveness of settlement".⁷² Roger Fisher and William Ury thus coined the phrase BATNA, to describe this measure of bargaining strength.⁷³ This concept can be used to provide a clear assessment of two of the disputes features; first, the relative bargaining strengths of the various groups, and secondly, some indication of how the various actors pursued their goals by improving their alternatives to negotiation.⁷⁴

At this stage in the dispute the Company was in the position where their alternatives to negotiation were preferable to that option. Hence, the Company's capacity to hold command over the other agents in the bargaining process. Conversely, the conservationists were faced with a less propitious set of alternatives and exercised little influence in the talks with the Company. For the conservationists the challenge lay with the task of developing their alternative means of pursuing preservation, to "improve the consequences of non-agreement".⁷⁵ If they could succeed in doing so then they could possibly alter the dynamics of the bargaining framework in their favour.

The most promising mechanism available to the conservationists was seen to lie with the application of some sort of legal sanction against the quarry operation. Within the context of environmental conflict, litigation may offer a number of advantages for an aggrieved party. To start with litigation can perform an agenda setting function.⁷⁶ Although the Black Head dispute was already developing into a major issue in the region by late 1988, it is probable that the profile of the conflict was subsequently raised due to the initiation of legal proceedings. However, of greater significance in the case of Black Head was the fact that litigation could offer empowerment. By opting to litigate a dispute a small group can derive some leverage to force some action on the matter in contention (although, the unequal distribution of structural resources may mean that small groups such as environmentalists are not be able to pursue legal remedies due to prohibitive financial costs).⁷⁷

But in practice, recourse to the courts would be dependent upon, on the one hand, an appropriate legal provision, and on the other hand, the evidence necessary to justify the case. I now focus on those matters.

7.3 (i) *The Legal Options*

The conservationists were faced with an array of potential legal options, a number of which seemed to offer some promise for the mitigation of the impact of quarrying activity. However, it was clear that in pragmatic terms certain provisions would afford a greater

⁷¹ L. Bacow and M. Wheeler, 1984, *Environmental Dispute Resolution* Plenum Press, New York, p. 38.

⁷² *Ibid.*

⁷³ R. Fisher and W. Ury, *Getting to Yes* pp. 101-110.

⁷⁴ Although, as I made clear in my review of the ADR literature in Chapter Three, ones' 'power' within a bargaining situation will derive from many factors, including those at the heart of this thesis.

⁷⁵ L. Bacow and M. Wheeler, 1984, *Environmental Dispute Resolution* p. 38.

⁷⁶ *Ibid.*, p. 13.

⁷⁷ *Ibid.*, p. 12.

chance of success than others. This was not only due to the applicability of the provisions to the case itself, but also to such considerations as cost and the willingness of those charged with administering the various statutes to engage in litigation. In the following paragraphs, I will briefly outline a few of the more promising options which faced the conservation groups, a number of which were pursued simultaneously in an effort to incur some sanction against the quarry operation.

As mentioned earlier, the most prudent option seemed to lie with the possibility of a prosecution under the *Harbours Act 1950*. S. 242. (1) of the Act provided, *inter alia*, that:

Every person commits an offence against this Act who does, or causes, or suffers to be done, any of the following things so as to be or tend to the injury of navigation, that is to say:-

(a) Casts or suffers to fall, either from on board any vessel or from land, any ballast, rock, stone, slate, shingle, gravel, sand, earth, cinders, rubbish, or other substance or thing on any tidal land, or into any harbour or tidal water, or into the sea below low water mark ...

As DoC administered the Act, any chance of a prosecution under S. 242 (1) was reliant upon their willingness and capacity to take up the burden of such a task.⁷⁸ In the event, DoC was to display that willingness. However, the more pressing obstacle was that of proving that the debris that had spilled into the tidal zone, and had done so as a result of quarrying operations rather than through natural means. If DoC could manage to authenticate its claims and succeed in winning a prosecution, then the possibility existed for the issue of a removal notice under S. 177 of the *Harbours Act*. In addition, the Company could be judged liable to pay for the removal of the stone, pursuant to S. 242 (2) of the Act. It was not, however, until early 1989 that hard evidence could be obtained to substantiate the allegations that material had fallen into the sea as a result of extractive activity.

The second major option arose with regard to the safety question. The quarry at Black Head fell under the regulation of the *Quarries and Tunnels Act 1982*. During 1988 and 1989 administration of the Act still remained under the jurisdiction of the Ministry of Energy (today Energy and Resources Division of the Ministry of Commerce), with the policing of the provisions of the Act being undertaken by the Inspector of Quarries. A requirement of the Act is that quarry managers take all reasonable precautions for the safety and health of workers and persons lawfully in or about the quarry.⁷⁹ Therefore, the FoB contended that the quarry operation was "posing a significant danger to members of the public using the Crown land below the mean high tide mark".⁸⁰ The Friends thus proceeded to place pressure on the Mines Division to make some attempt to force the Company to alter its management regime in such a way as to eliminate this threat to public safety. However, the feasibility of using this provision as a lever against the Company was somewhat questionable for three reasons: First, in terms of application of the law, factors such as the remoteness of the site and its contiguity with the sea would most probably serve to limit the utility of the provision for the conservationists if it came to judicial proceedings; Secondly,

⁷⁸ Under S. 252. *Harbours Act 1950* the penalty for offences under S. 242 (1) as a fine not exceeding \$1000. which would not in itself have been a significant deterrent to a company such as Black Head Quarries Ltd. During this time, the Friend's of Black Head received free legal advice from lawyers connected to the Maruia Society. Their advice was that repeated prosecutions might have some impact. P. Majury (Russel McVeigh, McKenzie, Bartlett & Co. Barristers and Solicitors, Auckland), 17 February 1989, Letter to Sue Maturin.

⁷⁹ *Quarry Regulations 1983* Reg. 10.

⁸⁰ Lloyd Godman, 7 March 1989, Letter to the Mines Inspector, Dunedin. Also; Friends of Black Head, 7 March 1989, Letter to David Butcher (Minister of Energy).

there was the problem of organisational recalcitrance, as the Ministry of Energy consistently avoided the possibility of their being drawn into the midst of the dispute; Finally, by focussing attention solely upon the safety question, debate would be moving even further away from the substantive environmental concerns at the heart of the conflict.

The third potential legal avenue was the *Town and Country Planning Act 1977*. Under S. 77 of that Act the Silver Peaks County Council (within whose district Black Head lay, prior to local body reform), had the "duty to keep objectionable elements in connection with certain uses of land to a minimum". With respect to Black Head, the problem lay in ascertaining whether or not aspects of the quarry operation constituted an 'objectionable element'. Although it seemed that the quarry was not in itself an 'objectionable element', there remained the possibility of categorising the falling debris as such.⁸¹ Once again, the execution of this option would be contingent upon both the favourable predisposition of the Silver Peaks County Council, and the provision of sufficient evidence to back the claims. Before discussion moves on to outline how the conservationists utilised the three legal options set out above, I will examine briefly a few of the constraints imposed by litigation upon the decision process.

As a mode of resolution, litigation per se was inadequate and inappropriate in the Black Head context for a series of reasons:⁸² First, due to the focussed nature of the law, and the fact that "environmental litigation is ostensibly directed at narrow procedural and legal issues", the essence of the underlying environmental question would be neglected.⁸³ Instead those engaged in the legal process could have found themselves arguing "shadow issues" with one substantive issue effectively becoming a surrogate for another.⁸⁴ All of the above potential legal options centred upon the issue of compliance. Each of the three main legal arguments essentially called for compliance with various substantive provisions of the existing resource regime.⁸⁵ Here one must remember that the anomalous rights structure out of which the conflict arose was in fact part of that same regime; A second problem arose because "litigation is not a finely tuned device for registering intensities of preference".⁸⁶ The content of any judicial decision may have been far removed from the preferences of the general public; Finally, as was noted previously, while the costs of initiating legal proceedings may have been relatively low, the later stages of the legal process could be costly.⁸⁷ In light of these three arguments, the most apparent advantage to be gained from commencing legal proceedings was the communication of a *credible threat* of litigation. The utility of legal action for the conservationists would, however, diminish as the process of litigation progressed.

⁸¹ P. Majury (Russel McVeigh, McKenzie, Bartlett & Co. Barristers and Solicitors, Auckland), 17 February 1989, Letter to Sue Maturin.

⁸² These reasons reflect the general thrust of the Alternative Dispute Resolution literature discussed in 3.2(i).

⁸³ L. Bacow and M. Wheeler, 1984, *Environmental Dispute Resolution* p. 18.

⁸⁴ Ibid.

⁸⁵ O. Young, 1982, *Resource Regimes: Natural Resources and Social Institutions* University of California Press, Berkeley, p. 39. See also: O. Young, 1979, *Compliance and Public Authority: A Theory with International Implications* John Hopkins Press, Baltimore, Ch. 1.

⁸⁶ L. Bacow and M. Wheeler, 1984, *Environmental Dispute Resolution* p.15.

⁸⁷ Ibid.

7.3.(ii) DoC's Changing Role: from Conservation Advocacy to Eliciting Compliance

The conflict came to a head during the latter half of 1988, when the Company moved its activity to the coastal periphery of the headland. This action resulted in the spillage of a substantial quantity of rock over the crest of the seaward faces, with some material falling down into the sea itself. In addition, further repeated spills over a period of months caused the debris to build up at the bottom of the slopes. The spills were significant both in their magnitude, and in the extent to which they were unmistakably caused by quarrying activity.

As a result of the succession of landslides, the conditions necessary for the execution of legal proceedings against the quarry under the *Harbours Act* were almost fulfilled. However, two other requirements needed to be satisfied before legal action could progress. The first was the need to obtain sufficient evidence to support any proceedings. The second was to make sure that the Department of Conservation, as the agent charged with the responsibility of eliciting compliance with the conditions of the existing resource regime, would manage to retain the political will necessary for the execution of this task. It was not until March of 1989 that these latter criteria were fulfilled.

On 3 March 1989 blasting operations created a new rock scree which tumbled down the seaward faces, burying some of the Roman baths area and spilling into the ocean. The spillage was brought to the public's attention by members of the FoB, who had been keeping a close eye on the area over the past months in order to catch the Company in the act. The Department of Conservation was subsequently made aware of the spillage, and DoC staff subsequently witnessed material falling into the tidal area. In light of this evidence DoC took a step closer towards the possibility of a prosecution by seeking legal advice (before moving any further).⁸⁸ The problem for the conservationists thus turned to the second prerequisite, that of the willingness of DoC to become entangled in such a potentially costly exercise. Hence, for the conservationists it was crucial they made sure that they could enlist, through their media campaign, enough public support to convince DoC of the efficacy of the legal option. The new agency was still engaged in the establishment process, the extent to which the public actively supported their moves would largely determine the path that they would ultimately pursue. As it happened, DoC was to proceed with legal action, laying a charge against BHQ in the Dunedin District Court.⁸⁹ The charge was made under the authority of the *Harbours Act 1950* ss 242 (1) and 252. For the participants in the dispute, the initiation of legal proceedings represented a significant change in the conflict's status, altering the incentive structures of the participants and providing them with a new set of strategic options.

The legal proceedings would have significant costs for both parties concerned. The most apparent cost involved was the financial burden that litigation made upon DoC and the Company. First of all, there was the possibility of a fine being imposed against the Company under S. 252 for S. 242 (1) and (2) of the *Harbours Act*. However, it is doubtful that the fine *per se* would have provided sufficient pecuniary sanction against the Company to significantly raise the costs of non-compliance, due to the fact that the maximum possible

⁸⁸ *Otago Daily Times* 6 March 1989.

⁸⁹ Julian Rodda (the then Regional Conservator for DoC, Otago/Southland Region), March 1989, Information, Dunedin District Court, March.

fine under S. 252 was only \$1000. Even if there were repeated prosecutions against the Company, it is doubtful that the accrual of the fines would have in itself affected the Company's position. As mentioned earlier, a second possible financial cost the courts could impose upon the Company would be the costs involved if the Company were to be issued with a removal notice pursuant to S. 177, and judged liable to pay for the removal of the stone under S. 242 (2). Such costs could in fact amount to a much greater sum due to the complex technical problems posed by such an exercise. However, they too would be determinant upon the successful prosecution of the Company. Under the circumstances, it seemed unlikely that such a decision would be made.⁹⁰

As well as the financial costs that could potentially be imposed by the courts, there were other monetary costs that would accrue to the parties regardless of any final decision by the court. Most significant, were the legal expenses that would inevitably be incurred over what could possibly have proven to be an extended period of time. BHQ was highly motivated in its desire to acquit itself of the charges, and they subsequently hired legal counsel at the cost of \$250 per hour. For the Company, the costs of providing a defence would be sizeable (the projected cost of the defence was seen to lie somewhere between \$50,000 and \$100,000).⁹¹ This was large sum compared to the maximum possible fine for a proven infringement. For DoC the expense involved would also have been substantial, and difficult to justify given the wide demands placed on the Department's small budget.⁹² Finally, of some influence, was the consideration that even if the Company succeeded in its defence, this would not preclude DoC from attempting to prosecute them again in the future.⁹³ A wasteful and unnecessary game of attrition appealed to neither party. It was thus in light of these facts that John Fulton clearly stated that as far as he was concerned "money was a decisive factor in providing the impetus for a negotiated settlement".⁹⁴ However, although the monetary considerations were crucial in determining the paths the various actors were to take, the implications of the legal action were not exclusively financial.

In addition to the financial costs of proceedings there was the issue of public perceptions. The consequences of legal action, in public relations terms, would in all probability be asymmetric. BHQ as the alleged violator would incur a significant measure of public disapprobation regardless of whether or not they were guilty. Non-compliance with the rules of the existing regime would not generate a favourable public perception of the Company. On the contrary, the possibility existed for the Company (and more significantly its parent companies) to be labelled environmental criminals. Moreover, such a perception could ultimately have financial ramifications for those organisations, if their business operations were to be adversely affected in any way. For a company that played a key role in the local economy such an image would be undesirable. John Fulton went even

⁹⁰ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

⁹¹ John Fulton, 3 February 1988, Letter to Sue Maturin, Dunedin.

⁹² Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

⁹³ John Fulton, 3 February 1988, Letter to Sue Maturin, Dunedin.

⁹⁴ Ibid.

further when he declared that "the issue was not doing Dunedin any good," ie. what was good for the Company was good for the region.⁹⁵

The controversy also took its toll in other ways. The potential for escalation of the conflict only served to compound the problems. Considerable uncertainty, and the possibility of the progressive loss of public goodwill, placed both the officers and the employees of the Company under varying degree of stress. This obviously depended upon the personality of the participants, yet even Fulton admitted that it was "playing havoc with his ulcer".⁹⁶ For others such as Jim Hunter, the 'bad guy' label was uncomfortable, and consequently for him improving the public perception of the Company was the most important motive for BHQ to pursue a more conciliatory stance. For Hunter the incentive to negotiate was "basically a matter of goodwill", the cost of litigation in dollar terms being less important.⁹⁷ As the companies involved were Dunedin based, and Dunedin being a relatively small centre, the influence of community values would be significant, and the businessmen making decisions about Black Head would have to live with their actions.

Before moving on, there are two significant points to note. First, there is the question of who was most likely to prevail in a legal battle. In the months that followed the laying of charges it became increasingly clear that BHQ was in a comparatively better legal position. This was due to a number of reasons regarding both the purpose of the relevant sections of the Harbours Act, and the proof of intent on the part of BHQ to cause an offence. BHQ's defence was based upon the arguments that the "rock which had fallen into the sea was not in fact cluttering up the waterways", and in addition, that it was not a case of purposeful dumping, but rather it was "inevitable spillage".⁹⁸ The Company was confident of winning its case in court,⁹⁹ whereas DoC was uncertain whether they should go through with the action.¹⁰⁰ However, as mentioned above, the possibility existed of repeated prosecutions under the Act, regardless of who initially prevailed in court.

The second point deals with an issue raised in Chapter Six; that the exchange-value of the Black Head operation was, in all likelihood, far smaller than the excessive estimates regularly suggested by the officers of BHQ. Indeed, as discussion in Chapter Eight will show, the costs to the Company of any concessions to the conservationists were also far less than the Company were admitting. Thus litigation was not necessarily the most attractive option.

In the months that followed the filing of charges in the District Court, the level of public interest and the intensity of the conservationists' campaign rose to unprecedented levels. Contemporaneous with the Harbours' prosecution there were a series of alternative paths pursued in the quest for protection of the headland.

In my previous discussion of the legal options I touched upon the 'safety question', and concluded that the provisions of the *Quarries and Tunnels Act 1982*, and the *Quarries*

⁹⁵ Ibid.

⁹⁶ Ibid.

⁹⁷ Jim Hunter (General Manager, Black Head Quarries), 3 August 1990, Personal interview, Logan Point, Dunedin.

⁹⁸ Ibid., Also: John Fulton, 3 February 1988, Letter to Sue Maturin, Dunedin.

⁹⁹ Ibid.

¹⁰⁰ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview.

Regulations 1983, were not the most promising legal options available to the conservationists. However, the safety question was an important component of the dispute, and one that was dealt with concomitant with the Harbours Act action. In March 1989 the FoB initiated correspondence with various government agencies emphasising the danger to the public that the quarry operation posed, and maintaining their longstanding contention that the Company was failing to take "all reasonable precautions for the health of all workers and persons in or about the quarry".¹⁰¹ They invited both the local Mines Inspector, and the then Minister of Energy, David Butcher, to remedy the situation.¹⁰² To encourage a response on the matter (the Ministry of Energy had consistently displayed a reluctance to be drawn into the dispute) the Friends enlisted the support of Michael Cullen, the MP for St Kilda and minister in the Labour Cabinet. Cullen sent letters to his colleagues Phillip Woollaston (Minister of Conservation) and Butcher, stating his concerns about the plight of the headland.¹⁰³

The Minister of Energy's reply to the conservationists was clear; the Mines Division were not going to pursue sanctions against the Company.¹⁰⁴ Indeed, if the Ministry of Energy was to take any side, the impression was that it would be with the Company and the status quo:

It would appear to me that you have not told me the full story in your letter of 7 March in that in fact the area is a very dangerous one regardless of the quarry operations. There are a number of recorded drownings at Black Head and without the presence of quarry personnel there could have been more...

And also:

My staff and I are naturally concerned for the public welfare at all times, and I would be distressed to think that the ignoring of safety warnings was being condoned simply to pursue other interests.

I would suggest that in view of the recent tragedies further down the coast, and as the Company have already made it plain that they propose in the future to provide safe access, that you accept their commitment.¹⁰⁵

As far as the Mines Division was concerned the inherent dangers of the headland were, in part, mitigated by the presence of the quarry. Moreover, BHQ was also performing a public function by decapitating the peninsula with the promise of safer and easier access to the rock formations in the future. The benefits that access could provide to society over the next 70 years did not justify consideration. Not unexpectedly, this response caused some consternation amongst the conservationists who continued to push for change in the quarry's management and operational practices.¹⁰⁶ By this stage, however, circumstances offered more propitious options for preservation.

7.4. The Final Negotiations

The public campaign reached its height during the latter half of 1989. At the beginning of this period two significant meetings were held. The first was organised by the FoB, and was

¹⁰¹ Friends of Black Head, 7 March 1989, Letter to Mines Inspector, Department of Mines, Dunedin.

¹⁰² Friends of Black Head, 7 March 1989, Letter to Minister of Energy (David Butcher).

¹⁰³ David Butcher (Minister of Energy), 1 May 1989, Letter to the Friends of Black Head.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Friends of Black Head, 5 May 1989, Letter to Minister of Energy (David Butcher).

held in the Otago Museum Auditorium on June 7. A large crowd of over 250 people attended¹⁰⁷, representing a broad cross section of the community.¹⁰⁸ The meeting was organised to provide a demonstration of public opposition to the destruction caused by the quarry,¹⁰⁹ to raise public awareness about the issue,¹¹⁰ to promote dialogue and to bring the Company to publicly account for its actions.

The key business actors were conspicuously absent from the meeting. Instead, they sent a planning consultant Peter Constantine as their representative on the discussion panel.¹¹¹ The panel consisted of Constantine, Guy Salmon (National Director of the Maruia Society), Cr Murray Grimwood (Silverpeaks County Council), Sue Maturin (FoB), Peter Carter and Chris Baker (Whanau o Otokia). Proceedings began with the Maori representatives and Sue Maturin outlining the case for the preservation of the headland. Peter Constantine then spoke, detailing the Company's revised management plan – essentially to quarry to the 30 m level around the coastal periphery so as to provide 'safe' access. The non-attendance by officers of the quarry Company caused considerable frustration that was exacerbated by Constantine's repetition of the Company's uncompromising position added to this.¹¹²

The meeting quickly got heated. A large group of quarry employees were in the audience, which led to a strong exchange of words across the floor. Constantine said that this was discussion by "mass hysteria and histrionics" and "what was needed were reasoned and rational people".¹¹³ He did make one inadvertent concession: that in the course of quarrying the Company would move away from the coastal faces for a period of up to eight years.¹¹⁴ (When the conservationists tried to make something of this statement in their later correspondence with BHQ, they were met with silence.¹¹⁵) Guy Salmon then spoke, outlining the importance of protecting not only the formations, but also their setting. He also questioned the right of private property holders to destroy their property in such circumstances,¹¹⁶ and outlined the political and legal options available to the public.¹¹⁷ The meeting ended with two resolutions being passed: The first was aimed at BHQ and called for the preservation of the entire coastal perimeter by means of a QEII Covenant, the cessation of spillage onto the coastal strip, and their participation in the clean-up of the formations; The second motion targeted the territorial authorities in the coastal Otago area, calling for their support for the preservation of the headland and requesting that they notify the Company of their intention to purchase rock supplies from alternative sources.¹¹⁸

¹⁰⁷ P. McLennan, 22 January 1990, "Watch on the Rocks" *Listener & TV Times* p. 102.

¹⁰⁸ Sue Maturin, 2 September 1991, Personal interview, Dunedin.

¹⁰⁹ *Otago Daily Times* 6 June 1989.

¹¹⁰ *Dunedin Star* 6 June 1989.

¹¹¹ John Fulton, 29 May 1989, Letter to the Friends of Black Head.

¹¹² Peter Johnson, 7 June 1989, Transcript of meeting proceedings.

¹¹³ *Ibid.*

¹¹⁴ P. McLennan, *op. cit.*, p. 102. ???

¹¹⁵ Friends of Black Head, 11 June 1989, Letter to John Fulton.

¹¹⁶ Robert Goodin provides a useful discussion on this particular question in G. Oddie and R. Perrett (eds), 1992, *Justice, Ethics, and New Zealand Society* Oxford University Press, Auckland.

¹¹⁷ P. Johnson, 7 June 1989, Transcript of meeting proceedings, Dunedin.

¹¹⁸ Friends of Black Head, 7 June 1989, Resolutions passed at the Black Head public meeting, Dunedin.

The museum meeting ended with little progress being made towards resolving the dispute. Peter Constantine had stated that the problem of communication was central to Black Head.¹¹⁹ However, it was becoming increasingly apparent that the problem was far more than one of communication. As was revealed in the previous chapter, the dispute evolved out of a fundamental conflict of interests arising out of the prevailing relations of production. The meeting did, however, stimulate increased public support and greater resolve to settle the dispute from local body politicians and DoC representatives.¹²⁰

The amount of attention the issue received in the media steadily increased over this period. The result was a higher level of public awareness in the Dunedin area and a heightening of opposition to the quarrying activity. One means by which this opposition was made manifest was through the compilation of a public petition protesting the negative environmental impact of basalt extraction, and calling for the abatement of these effects. The petition was targeted primarily at the Silver Peaks County Council which was the territorial authority responsible for planning issues affecting Black Head.¹²¹ It was hoped that the council could be stimulated into playing an active role in the quest for preservation. More specifically, there was the possibility that particular externalities, such as falling debris and excess noise, could be considered an "objectionable element" under the provisions of the *Town and Country Planning Act 1977*.¹²² In purely procedural terms, the efficacy of this avenue was somewhat questionable. In addition, the Silver Peaks County Council was subject to various structural constraints (eg. limited resources, dependence upon such enterprises) and was soon to be caught up in the exercise of local body reform.¹²³ However, the petition itself was useful in terms of articulating a genuine concern on the part of the local community, and was a useful indicator for the conservation groups when presenting their case in various forms.

The petition, with 6114 signatures, was presented to the Silver Peaks County Council by a FoB deputation at the June 26 council meeting.¹²⁴ At that meeting, Cr Grimwood who had taken part in the museum meeting, suggested that a mediation meeting be held at the Silver Peaks offices.¹²⁵ The main parties were subsequently invited to attend a meeting at the council chambers to be chaired by the Council Chairman Mick Robertson on 27 July.¹²⁶ BHQ said they would not be ready by the 27th to present a decision, but that they would attend the meeting.¹²⁷ The FoB set about lobbying councillors.¹²⁸

The meeting itself was attended by representatives from BHQ, FoB, Maori interests, DoC, Silver Peaks County Council and the Mines Inspectorate of the Ministry of Commerce. The atmosphere, although at times heated, was mostly amicable. Proceedings

¹¹⁹ P. McLennan, *op. cit.*, p. 102.

¹²⁰ P. Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

¹²¹ Sue Maturin, 6 July 1989, Letter to Minister for the Environment (Hon Geoffrey Palmer), Opoho, Dunedin.

¹²² P. Majury, 17 February 1989, Letter to Sue Maturin, Auckland.

¹²³ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin.

¹²⁴ P. Willis (Silver Peaks County Manager), 7 July 1989, Letter to Sue Maturin, Dunedin.

¹²⁵ *Otago Daily Times* 27 June 27 1989.

¹²⁶ P. Willis (Silver Peaks County Manager), 7 July 1989, Letter to Sue Maturin, Dunedin.

¹²⁷ Sue Maturin, 12 July 1989, Discussion with Peter Constantine, Dunedin.

¹²⁸ Peter Johnson, 18 July 1989, Notes taken at Friends of Black Head committee meeting, Dunedin.

began with John Fulton presenting his Company's position. Once again, he talked about lowering the headland to the 30 metre level to provide safe access to the formations and to enable the restoration of the Roman Baths area.¹²⁹ Fulton had brought along Jim Hunter, the General Manager of BHQ, to the meeting. Hunter said that the public "hullabaloo" had prompted the Company to pull back for a while; it was for the present concentrating its operations on the north side of the headland instead.¹³⁰ Peter Constantine said the management plan was still being worked on and that BHQ was having discussions with the QEII Trust. He also said the Company would consult with the Friends on the management plan issue. Peter Carter and Chris Baker then spoke for Maori interests, putting their case quite forcibly.¹³¹ They were followed by the FoB representatives, Dr Peter Johnson and Neville Peat, who reiterated the concerns of the conservationists.¹³² They also pointed out that the Company's position had not changed in two years and that under such circumstances they would have no choice but to continue with the campaign.¹³³

On the surface it seemed that little progress had been made at the Silver Peaks meeting. This view was felt strongest by the conservationists who maintained that no breakthrough had been made at all.¹³⁴ Indeed, Sue Maturin saw the gathering as a non-event.¹³⁵ Others who attended the meeting saw it in a different light. For Jim Hunter, the Silver Peaks meeting was a significant juncture in the controversy.¹³⁶ Prior to the meeting, John Fulton and Robin Thomas (District Conservator) had carried out negotiations between BHQ and DoC, and the talks had reached an unfortunate stalemate. But in mid 1989 DoC went through a second phase of restructuring, and as a result responsibility for Black Head fell upon the new Regional Conservator for Otago, Jeff Connell.¹³⁷ Connell attended the Silver Peaks meeting with Thomas. During the course of discussion, Connell said that the Company had to be given credit for agreeing not to quarry above the prize formations – his comments were noted by the Company representatives as a positive signal.¹³⁸ In an informal discussion after the meeting Jim Hunter and Jeff Connell expressed a common desire to resolve the conflict.¹³⁹ Connell asked Fulton and Hunter how the issue could be resolved without going to court.¹⁴⁰ As a result, Hunter agreed to meet for further discussions with Connell at the Department of Conservation regional offices in Dunedin.¹⁴¹ Although a disappointment for the conservation groups, the Silver Peaks meeting facilitated an important change in the dynamics of the central negotiations. The initial contact

¹²⁹ Peter Johnson, 27 July 1989, Notes taken at Silver Peaks meeting, Dunedin.

¹³⁰ Ibid.

¹³¹ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin.

¹³² Murray Tonks (Friends of Black Head committee member), 27 July 1989, Notes taken at Silver Peaks meeting, Dunedin.

¹³³ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin.

¹³⁴ Ibid.

¹³⁵ Sue Maturin, 2 September 1991, Personal interview, Dunedin.

¹³⁶ Jim Hunter, 3 August 1990, Personal interview, Logan Point, Dunedin.

¹³⁷ Robin Thomas, 14 February 1991, Personal interview, Department of Conservation, Dunedin.

¹³⁸ Jeff Connell (Regional Conservator, Otago Region), 12 August 1991, Personal interview, Department of Conservation, Dunedin.

¹³⁹ Jim Hunter, 3 August 1990, Personal interview, Logan Point, Dunedin.

¹⁴⁰ John Fulton, 14 August 1990, Personal interview, Fairfield, Dunedin.

¹⁴¹ Jeff Connell (Regional Conservator, Otago Region), 12 August 1991, Personal interview, Department of Conservation, Dunedin.

established at the meeting led to Jim Hunter taking over from Fulton in the negotiations. Hunter's more conciliatory style and greater conservation sympathies proved to be a key factor in the success of the final negotiations.

At this point Jeff Connell had three bargaining chips: The first was the prosecution that had already been lodged against BHQ under ss 242 (1) and 252 of the *Harbours Act*; The second was an alternative section of the *Harbours Act* (S. 244 (3)), which seemed to Connell a much more useful provision (Connell had a legal background). Although not watertight, Connell believed this section to be arguable. He subsequently sent a letter to the Company notifying them that under S. 244 (3) they would require a consent from the Minister of Conservation to spill any material at all onto the foreshore (see Appendix C); And the third bargaining chip was the increased pressure the conservationists' campaign generated against the Company.¹⁴²

A series of negotiations involving five or six meetings began after the Silver Peaks gathering.¹⁴³ John Fulton attended the first meeting at the DoC offices. However, most of the other talks were between Hunter and Connell. Their initial contacts involved the establishment of dialogue. Connell began on the wrong foot by presenting Hunter with an aerial photograph of the headland with a bold black line denoting the FoB's claims.¹⁴⁴ The mistake was twofold: he had identified himself too closely with the conservation campaign; and also, a positional strategy was bound to constrain the search for a creative common solution. Hunter did not like this approach, commenting that he had hoped for a sensible and constructive dialogue. Things, however, did eventually settle down. Subsequent meetings were held not only at the DoC offices but also at Hunters's office at the Logan Point quarry in Dunedin. This enabled Connell to gain a working knowledge of quarry method; there was a "steep learning curve" for both parties.¹⁴⁵

It was decided that the appropriate mechanism for protection was a statutory covenant (see para 8.2). The thrust of Connell's argument was that if the line around the headland were raised from the 30 metre position advanced by BHQ to 70 metres above the main formations, this would retain much of the atmosphere of the setting. It would also protect the flora on the slopes above the basalt columns. Although Hunter agreed to Connell's proposal, he did harbour reservations about selling the deal to the board and John Fulton.¹⁴⁶ In late September Connell sent a letter to BHQ setting out the conditions of a draft agreement.¹⁴⁷ All the directors agreed to the position of the line.¹⁴⁸ The dimensions of the area to be covenanted constituted the major element of the settlement, yet there remained a number of outstanding questions that had to be dealt with before anything concrete was agreed upon. A central point of contention was the extent of spillage to be allowed. It would be necessary to remove unstable rock from above the area to be protected, and any spillage was to be confined as much as possible. The difficulty lay in setting guidelines for

¹⁴² Ibid.

¹⁴³ Jim Hunter, 3 August 1990, Personal interview, Logan Point, Dunedin.

¹⁴⁴ Jeff Connell (Regional Conservator, Otago Region), 12 August 1991, Personal interview, Department of Conservation, Dunedin.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ John Fulton, 14 August 1990, Personal interview, Fairfield, Dunedin.

¹⁴⁸ Jim Hunter, 3 August 1990, Personal interview, Logan Point, Dunedin.

this procedure. These questions were sorted out in the remaining negotiations during late 1989.¹⁴⁹ Personalities had been very important in determining the success of the negotiations. The fact that Hunter had taken over the negotiations from Fulton made it much easier for the Company to change its stance without it being seen as a back down. It also enabled a good working relationship to develop between Hunter and Connell, based on considerable mutual respect.¹⁵⁰

During this period, BHQ made it clear they did not want to deal with the FoB. They did not, however, have any objection to Connell consulting with the conservationists.¹⁵¹ The exclusion of the conservation groups from the central dialogue generated inevitable frustration and anger.¹⁵² In an effort to mitigate this tension Connell communicated regularly with the FoB during the negotiation process. These talks served to keep FoB informed of the progress, and acted as a conduit for the concerns of the conservationists. To Connell it was clear that he could not possibly get an agreement that the Friends would be happy with,¹⁵³ and he was very frank about the invidious position he was in.¹⁵⁴ Maturin's concern was that she thought Connell was more interested in achieving an agreement *per se*.¹⁵⁵ Under the pressure that Connell faced, it would have been strange if he wasn't partly driven by such an imperative. Yet discussions were on the whole amicable.¹⁵⁶ Members of the FoB thought that under the circumstances Connell did a good job both of keeping them informed¹⁵⁷ and in his conduct of the negotiations.¹⁵⁸ In retrospect, DoC and the FoB played necessary interdependent roles, enabling a hard/soft bargaining strategy to develop. The more radical the demands made by the conservationists, the more reasonable Connell's suggestions seemed to the Company.¹⁵⁹ This may have been reasonably effective under the circumstances, but as shall be revealed in the next chapter, the exclusive nature of the decision-making process led to greater resentment and dissatisfaction with the final settlement.

On February 13, 1990, the *Otago Daily Times* reported the Company had reached a settlement with DoC. The imminent deadline for withdrawal from the legal prosecution had forced the parties to finally agree. Subsequently, at a pre-trial conference on February 13, DoC instructed the Crown Solicitors Office to withdraw the prosecution.¹⁶⁰ Following this, the details of the agreement were to be made public on 15 February at a gathering at the quarry site. However, any public relations benefits to be gained from this public announcement quickly disappeared when disgruntled FoB members pre-empted the formal announcement. Due to Connell's efforts the FoB had been privy to the content of the

¹⁴⁹ Jeff Connell (Regional Conservator, Otago Region), 12 August 1991, Personal interview.

¹⁵⁰ Jim Hunter, 3 August 1990, Personal interview, Logan Point, Dunedin.

¹⁵¹ Jeff Connell (Regional Conservator, Otago Region), 12 August 1991, Personal interview.

¹⁵² Sue Maturin, 2 September 1991, Personal interview, Dunedin.

¹⁵³ Jeff Connell (Regional Conservator, Otago Region), 12 August 1991, Personal interview.

¹⁵⁴ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin.

¹⁵⁵ Sue Maturin, 2 September 1991, Personal interview, Dunedin.

¹⁵⁶ Peter Johnson, 22 February 1991, Personal interview, DSIR, Dunedin.

¹⁵⁷ Sue Maturin, 2 September 1991, Personal interview, Dunedin.

¹⁵⁸ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin.

¹⁵⁹ Jeff Connell, 12 August 1991, Personal interview, Department of Conservation, Dunedin.

¹⁶⁰ *Otago Daily Times* 13 February 1990.

settlement, and there was an informal agreement that they would not publicly comment on the settlement until after it was formally announced.¹⁶¹ Maturin, however, saw the settlement as totally inadequate and issued a press release to the *Otago Daily Times* criticising the agreement.¹⁶² On February 16 the front page of the *Otago Daily Times* featured a large photograph depicting the extent of the protected area. Far from extolling the success of the agreement the attached headlines read: "Pact Leaves Eastern Bluffs Unprotected".¹⁶³ The conservationists had cast a dim light over the agreement. Yet the 1990 pact did end the dispute despite the conservationists dissatisfaction.

7.5. Conclusion

In summary, the Black Head conflict was a relatively small-scale environmental conflict, and the substantive issues were relatively uncomplicated. The dispute did, however, stimulate intense reactions on both sides of the argument. It also attracted some national interest in the issue, in terms of media attention as well as political intervention. Its format was largely informal and fluid, and the emphasis upon processes of private negotiation allowed business to dictate many of the terms of the conflict (see Chapter Nine). The Black Head conflict was very different to the large scale, highly structured and substantively complex Whanganui dispute that is discussed later. By comparison with this chapter, the following chapter is relatively brief and deals with the negotiated settlement.

¹⁶¹ Jeff Connell, 12 August 1991, Personal interview, Department of Conservation, Dunedin.

¹⁶² *Otago Daily Times* February 14, 1990.

¹⁶³ *Otago Daily Times* February 16, 1990.

The Conservation Covenant: A Pyrrhic Victory

8.1. Introduction

The essential question that I discuss in this chapter is whose interests were served by the negotiated settlement? Any answer to this question will provide a useful starting point for my analysis of business influence and dominance in the following chapter. It is important to reiterate that my framework of business dominance is conceived in realist terms. It treats the generative mechanisms of business power as transfactual tendencies within complex open systems, and because of this is *not* a totalising theory; it cannot predict that business will dominate in a particular substantive outcome. Nonetheless, it will be valuable to set my investigation of business power (Chapter Nine) against an understanding of whose interests prevailed, were accommodated, marginalised, etc.

I organise the chapter on the following basis: I begin with a basic factual description of the components of the settlement, and their purposes; Next, I set out the responses and analyses of the various participants to the agreement; I then provide an overview of the economic analysis of the settlement undertaken by Ross Cullen. Cullen's basic conclusion was that (at discount rates of 4 percent or higher) the settlement appears to have awarded a windfall to the quarry owners. This analysis is of fundamental importance in the context of this thesis because, as I shall show, while conservationists were dissatisfied with the agreement there was still a general belief that the Company had made a significant financial sacrifice. By setting these two analyses against one another it is possible to provide for the kind of dialectical explanation envisaged by critical realists (see 2.4). In Chapter Nine I argue that this disjunction was largely a product the power of business and its manifest ability to define reality; Finally, since some time has passed since the settlement I will provide a brief postscript on the environmental developments.

One final point is that my arguments are based on the types of values articulated in the dispute, some of which were quantified and measured in money terms and some not. No attempt is made to 'commodify' the 'non-commodified' values. This is consistent with Cullen's approach where "in some instances these difficult questions of valuation can be avoided by calculating solely the values of the market-determined benefits and costs, and by

considering their magnitudes in relation to subjective estimates of the non-marketed values.”¹

8.2. The Settlement

The agreement between the Department of Conservation and BHQ initially involved the placing of a caveat upon the certificate of title to the land.² This caveat had the effect of protecting the area of land to be covenanted pending the drafting and ratification of the more detailed final documents (Figure 8.1 is an aerial photograph with the covenanted area marked; NB the excluded Eastern Bluffs are obscured – although see Figures 6.6 and 6.7). This temporary status prevailed for fifteen months until 14 May 1991 when the final signatures of the Minister of Conservation, Denis Marshall, and BHQ’s Managing Director, Jim Hunter, were attached to the conservation covenant. In the eyes of the signatories this endorsement signalled the resolution of the controversy – the Black Head dispute was effectively over.³

The settlement had two main elements: First, the conservation covenant and the associated promises made by the Company to consult with the Department of Conservation in the future; And secondly, DoC agreed to withdraw its prosecution against BHQ, and would also issue the Company with a consent under the *Harbours Act* to allow it to quarry around the coastal faces with relative immunity from prosecution.

8.2.(i) The Conservation Covenant

A conservation covenant is a form of contract. Restrictions are placed upon the future use of an area of land either for a limited time or in perpetuity, with the landowner (Covenantor) contracting to manage the land in accordance with the conditions of the agreement.⁴ An interest in the land is vested in the recipient of the covenant (the Covenantee). The covenant itself is both “exclusive and unique to the land to which it is attached” and can be “designed for particular purposes and the accompanying restrictions can be tailored to suit the specific characteristics of the land”.⁵ Registration against the title to the land affords the covenant permanent legal status, and ensures that both present and future owners of the land are bound by the terms of the covenant.

Like the majority of conservation covenants the Black Head covenant was a statutory covenant. The Minister of Conservation (the Minister) received an interest in the land by virtue of S. 27 of the *Conservation Act 1987*, which provided that; “there may be granted or

¹ R. Cullen, 1991, “Discounting the Economic Costs of Conservation and Compensation” *Environment and Planning A* Vol 23, p. 1121.

² “A caveat is a notice of a claim which may or may not be a valid claim. ... The normal purpose of a caveat is to warn all persons who might deal on the faith of the register, and also the registered proprietor himself, that the caveator claims an interest which is not disclosed on the register.” G. Hinde and M. Hinde, 1989, *New Zealand Law Dictionary* Butterworths, Wellington.

³ *Otago Daily Times* 13 February 1990.

⁴ V. Edwards and B. Sharp, 1990, “Institutional Arrangements for Conservation on Private Land in New Zealand” *Journal of Environmental Management* No. 31, p. 317.

⁵ V. Edwards, 1988, “Harnessing Private Benefits for the Public Good: A Political Economy of Statutory Covenants and their Effectiveness in Protecting Conservation Values on Private Land” MSc Thesis, Resource Management, University of Canterbury, p. 24.

reserved over any land any covenant for conservation purposes in favour of the Minister".⁶ The Crown, through the Minister as the covenanting entity was the beneficiary of the covenant. In addition to the costs of setting up the covenant, the beneficiary has the burden of maintaining the conditions of the covenant, and eliciting compliance in the event of any infringements. Enforcement of the requirements could be facilitated, if necessary, by a legal suit against the landowner.⁷ Having briefly set out the basic features of the statutory covenant as a policy instrument I turn now to the specifics of the Black Head agreement (The Black Head Covenant is reproduced in full in Appendix A).

The parties to the agreement were Black Head Quarries Ltd as the "Land holder", and the "Minister". In recital B, the Land holder's relationship to the covenanted area was established, the area of land was described and illustrated graphically in the attached elemental plan. Conditions 14(a)–(d), made it clear that the covenant was granted in perpetuity and that it would continue regardless of any change in ownership, or change in form of ownership. The four objectives of recital C provided the agreement with a clear purpose. Objectives (i), (ii) and (iii) were concerned with the preservation of, access to, and rehabilitation of, the basalt formations on the land. Objective (iv) focused upon the protection and restoration of the flora and fauna of the covenanted area.

Most of the conditions governing the management of the land dealt with the conservation objective and the prevention or mitigation of potential threats to the area. Strict limits were imposed upon modification of the land. Any subsequent deviation from those restrictions was contingent upon the Minister's approval (the onus was quite clearly upon the Minister's discretion). The conditions relating to change dealt firstly with threats emerging as a direct consequence of quarrying activity. The inevitability of debris spilling into the area meant that some provision had to be made for that particular eventuality. While seeking to mitigate the extent of damage from that source, the agreement facilitated the final extraction of material from the periphery of the covenanted area. The Company in its desire to be rid of the conflict, made it clear that it intended to concentrate its activities in the vicinity of the boundary area, thus enabling it to focus upon future extractive activity without the problem of spillage onto the protected areas.⁸ Guidelines for that exercise were set out in the attached *Harbours'* consent, which to a degree served to protect the Company from future legal prosecution under the *Harbours Act 1950*. The prescribed limits to change set out in the agreement also dealt with other conceivable threats. Protection of the biota was provided for with a ban upon the removal of, or damage to, any native or exotic vegetation; there was a restriction upon the additional planting of vegetation, and a requirement to keep the area clear of both noxious plants and exotic tree species.

The crucial issue of public access was also addressed. The agreement established a duty upon the Land holder to "discuss from time to time with the Regional Conservator the matter of public access to the land with a view to permitting public access across the land when it was reasonably safe and appropriate to do so". As a consequence, the duty was to discuss, while any obligation to provide access to the public remained contingent.

⁶ V. Edwards and B. Sharp, 1990, "Institutional Arrangements" p. 319.

⁷ *Ibid.*, p. 318.

⁸ Black Head Quarries Limited, November 1989, Draft Management Plan, Fairfield, Dunedin.

Subsequent conditions did allow for the possibility of public access in the future, providing for the erection of signs and notices relating to the existence of the covenant, warning of risks, and interpreting the features. In addition, there was allowance for future construction to facilitate public access. Notwithstanding this, the question of public access remained uncertain.

The conservation covenant was the cornerstone of the negotiated settlement, as the institutional solution to the question of how to protect the coastal periphery of Black Head. As I mentioned earlier, the establishment of this mechanism involved substantial modification of the Land holder's property rights. In signing the agreement the Land holder relinquished much of their control over the resource, restricting land use options previously open to them. In Chapter Seven I examined the incentives for BHQ to reach some sort of settlement with the conservation interests. In resisting a compromise the Company was certainly incurring significant transaction costs, both in dollar and PR terms. Moreover, it is not unreasonable to suggest that for the Company there were also potential future benefits in protecting the area. However the concessions made by the Company in its decision to place a covenant upon the area make more sense when the remaining part of the agreement is considered; where the stream of benefits flowed towards the Company, providing, in effect, a compensatory *quid pro quo*.

8.2.(ii) *The Compensating Quid Pro Quo*

The formula of the Black Head settlement involved two major concessions to the Company. The most immediate was the withdrawal of the legal proceedings against BHQ by the Department of Conservation, an inevitable step if a settlement was to be achieved. Of greater significance, however, was the second concession in the form of a consent pursuant to S. 244(3) of the *Harbours Act 1950* (see Appendices B and C). It was noted previously that one purpose of the consent was to enable the Company to extract the remaining quantity of basalt coterminous with the protected area without the possibility of future legal action. Indeed, this is an important function of the consent. Yet, the area subject to the consent extended *beyond* that directly contiguous with the covenanted land, to include the greater part of the vertical eastern bluffs. Thus in addition to facilitating the ultimate protection of the covenanted area, the consent enabled BHQ to quarry the eastern bluffs with virtual impunity from prosecution under S. 244(3). The consequence of this dispensation was to allow the Company to quarry a large quantity of rock that it may not have been previously able to, without the threat of legal action. And, furthermore, there was the potential for much reduced extraction costs resulting from this licence.⁹ Some estimates of the value of these concessions will be suggested later in the discussion.

⁹ Ross Cullen (Senior Lecturer, Department of Economics, University of Otago), 16 February 1990, Letter to Jeff Connell, Regional Conservator, Otago Conservancy, Dunedin.

8.3. The Participants' Reactions to the Agreement

The Company were clearly pleased with the outcome,¹⁰ which they believed served both the "public and private interests".¹¹ At the same time BHQ emphasised the sacrifices that they had made in shaping this compromise. Protection of the covenanted area had the effect of tying up 2.5 million tonnes of rock that could otherwise have been extracted. The Company subsequently estimated that the forfeiture of that resource represented a loss of \$30 million in potential revenues.¹² This figure was quoted repeatedly by the representatives of both the Company and (crucially) DoC when referring to the content of the settlement.¹³ In some instances this figure was further qualified by noting; it "represents the gross revenue expected from sales of the 2.5 million tonnes",¹⁴ if "processed and sold by the Company today".¹⁵ In the next section I critically examine that estimate. For the time being it shall suffice to say that the sum was a gross overestimate, utilised to convey the impression of a great sacrifice on the part of the Company – to ask any more of them would be totally unreasonable. It was also used by DoC to emphasise their gains. This tactic is wholly consistent with much of the literature on bargaining behaviour. In a situation where a party gives up a little, it might want to exaggerate what it is giving up. And, of course, the reverse applies to the contending parties who will attempt to minimise the general perception of what they are getting (DoC was the exception here).¹⁶

The Company also presented their part in the agreement in terms of the deviation from their original bargaining position. For example (note that in general terms, the higher the level above sea level the greater the conservation benefits):

Position A – No compromise, the status quo prevails;

Position B – Willing to protect area below the 30m mark;

Position C – Final concession, protect area which extends, in part, to the 70m level.

My point is that the final compromise was made to appear by and large to be a reasonable and considered solution¹⁷, simply because it was just that, a compromise. The focus upon the bargaining *process* and the strong emphasis upon the resolution of conflict *per se* as an objective, subsumed that of the substantive content of the agreement. The settlement was seen in a favourable light independent of how it might fare when measured against wider criteria.

¹⁰ Churchill Walls (Quarry Manager, Black Head Quarries), quoted in *Otago Daily Times* 13 February 1990.

¹¹ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin.

¹² Ibid.

¹³ Phillip Woollaston (Minister of Conservation), 15 February 1990, "Black Head Formations Saved" Press Release, Wellington; John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin ; *Otago Daily Times* 16 February 1990; Jim Hunter (General Manager, Black Head Quarries), 3 August 1990, Personal interview, Logan Point, Dunedin.

¹⁴ *Otago Daily Times* 16 February 1990.

¹⁵ Phillip Woollaston, (Minister of Conservation), 15 February 1990, "Black Head Formations Saved".

¹⁶ H. Raiffa, 1982, *The Art and Science of Negotiation* Harvard University Press, Cambridge Ma., p. 17. Elsewhere, Hodge notes that: "... if the intention is to pay the farmer full compensation [for nature conservation], another incentive is created. That is, for the farmer to understate his true costs of development or to overstate his expected returns in order seek compensation in excess of the loss." I. Hodge, 1989, "Compensation for Nature Conservation" *Environment and Planning A* Vol. 21, p. 1032.

¹⁷ John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview.

As noted above, there were potential gains for the Company from the settlement. For example, an improved public image for BHQ and its parent companies and the activity facilitated by the Harbours' consent. However, it was in the interests of the Company to down play or even deny those benefits. As a result, they received scant mention.¹⁸ In addition, despite the Friends of Black Head managing to pre-empt the announcement of the covenant, an action which diminished the possible public relations benefits to the Company, there was little protest activity post-agreement. This was certainly appreciated by the officers of the Company.¹⁹

It was inevitable that DoC, as the other agent involved in negotiating the settlement, would attempt to portray the agreement as a favourable solution. The Regional Conservator had invested considerable time and energy in negotiating the settlement; a solution that he perceived as a very good one.²⁰ However, it is important to take note of the context of the negotiations. As I made clear in the previous chapter, the private conservationists placed considerable pressure upon DoC to act on the Black Head issue. As soon as DoC made the initial decision to engage itself in the controversy (an action which, due to that public interest, was probably inevitable) it was subject to the following imperative; facilitate the resolution of conflict, or face a loss of mana – an outcome which could threaten the credibility of DoC as an advocate for conservation values within the Otago region. Furthermore, the pressure upon DoC to vigorously pursue the case came not only directly from the local community, but also from Wellington, due to the influence of Dr Michael Cullen and the Phillip Woollaston, both Ministers in the then Labour Government. There were considerable incentives for DoC to make sure the settlement was seen as an acceptable outcome.²¹

DoC promoted the agreement as a reasoned solution – one that represented a “fair balance between the interests of the Company and the wider community”.²² Again, there were allusions to *reason* and *fairness*. The Company had previously made it quite clear that if they could satisfy DoC, they would satisfy the general public. In their view the Department was seen to represent legitimate conservation interests, and would pursue those interests in a reasoned and respectable manner (the inference being the private conservation groups would not).²³ Consistent with this emphasis DoC representatives repeatedly stressed the need to recognise the limits of the possible – to acknowledge that “DoC has to be practical in the final approach”.²⁴ Subsequently, the Department justified the settlement on the pretext that the inclusion of the eastern bluffs, or any other area of Black Head, would have required compensation to be paid to BHQ, in the order of millions of dollars (note the

¹⁸ Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview, Dunedin.

¹⁹ Jim Hunter, (General Manager, Black Head Quarries), 3 August 1990, Personal interview, Logan Point, Dunedin. Also: John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview.

²⁰ Jeff Connell (Regional Conservator, DoC, Otago Conservancy), 12 August 1991, Personal interview, Dunedin.

²¹ Phillip Woollaston, (Minister of Conservation), 15 February 1990, “Black Head Formations Saved” Press Release, Wellington. Also: Phillip Woollaston, 6 April 1990, Letter to Friends of Black Head, Wellington.

²² Ibid.

²³ Jeff Connell, 12 August 1991, Personal interview.

²⁴ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

Company's status as a price setter). The payment of such sums to the Company was ruled out at an early stage in the dispute. The priorities question demanded that DoC measure the benefits of such expenditure against those to be gained through the purchase of other areas in its land acquisition programs. Jeff Connell also thought the highly modified state of Black Head, and the existence of other examples of columnar basalt (see 6.4.(i) served to vitiate the case for greater government expenditure on the headland.²⁵

Yet some DoC officers did continue to harbour reservations about the agreement. Robin Thomas, who managed the earlier discussions with the Company, felt that if caught at an early stage the negotiations could have taken a different path. He felt that the Company could possibly have been encouraged to adopt a quarrying technique that would not rule out future options, and that the parties to the agreement had not fully explored the potential for a creative solution.²⁶

The announcement of the settlement was also received favourably in other quarters. In a press statement (released simultaneously with the Minister's), the Mayor of Dunedin, Richard Walls, congratulated all parties involved in the agreement, stating that he was "naturally pleased with the agreement".²⁷ This initial public reaction is revealing when set against the view later expressed by Mr Walls in a personal interview, where he stipulated that the "outcome was not a wholly acceptable one" in terms of accommodating conservation interests.²⁸ The disjunction between the Mayor's two statements either raises questions as to the extent of business influence over local government, or was just an example of political double-speak. Also of note was the prominent editorial in the *Otago Daily Times* that followed the public announcement of the settlement. The agreement was heralded as a "sensible compromise", made more acceptable because concessions were made without the need to compensate the Company using public monies. The paper's line of argument was founded upon the premise that if the community desired further protection then this would be entirely dependent upon the public's willingness to pay; The essential problem was to save a portion of the "visually dramatic headland at a price all of us, together, are willing to pay".²⁹ There was no mention of the unequal distribution of resources/capacity to pay or collective action problems – which would have constrained or ruled out, any such initiative.

The appeal to reason – that stressed the necessity of compromise and mutual adjustment – was received sympathetically by some members of the conservation coalition. The DSIR botanist, Dr Peter Johnson, sanctioned the agreement to the extent that it prevented the Company from "going the whole hog in extracting the basalt".³⁰ Johnson regretted the exclusion of the eastern bluffs from the covenant, and also the fact that so much damage had already been allowed to happen. However, as with the conservation officers, he stressed the limits of the possible.³¹

²⁵ Jeff Connell, 12 August 1991, Personal interview.

²⁶ Robin Thomas (District Conservator, Dunedin District), 14 February 1991, Personal interview, Department of Conservation, Dunedin.

²⁷ Richard Walls (Mayor of Dunedin), 15 February 1990, Press Release, Dunedin.

²⁸ Ibid. The mayor also made it clear to the Department of Conservation that he thought the agreement to be a good one. Jeff Connell, 12 August 1991, Personal interview.

²⁹ *Otago Daily Times* 17 February 1990.

³⁰ P. Johnson (DSIR botanist, Dunedin), 22 February 1991, Personal interview, Dunedin.

³¹ Ibid.

Most members of the conservation coalition maintained a more equivocal perception of the settlement and were generally dissatisfied with the agreement. Despite welcoming the partial protection of the headland as a move in the right direction³², they observed that there would be significant environmental losses.

Their main concern was that there was only *partial* coverage of the headland, the most notable omission being the immense eastern bluffs from the covenant, which was considered a terrible loss.³³ The FoB suggested at the time that they would have been satisfied with the covenant if the boundary had been shifted 80 meters along the coast, thus protecting the bluffs, shoreline and the wildlife that inhabited the area.³⁴ Sue Maturin pointed out that not only would the Harbours' concession allow BHQ to quarry the eastern bluffs (in addition to the possibility of reduced extraction costs), it would provide an apparent incentive for the Company to quarry that area sooner than it would otherwise have done so (see next section). Furthermore, coalition representatives seriously questioned the two main arguments offered by the signatories when ruling out the protection of the bluffs as a practical option. The conservationists contended; firstly that the estimates of the exchange-value of the rock were deliberately exaggerated by the Company as a negotiation tactic,³⁵ and secondly, that the Company's argument that the quarry would become uneconomic if the eastern bluffs were protected, was in fact wrong.^{36,37} As well as their opposition to the exclusion of the bluffs, the Friends of Black Head harboured reservations about the management of the covenanted area as set out in the agreement.

The conservationists also held that the removal of the bulk of the headland, and the protection of a narrow wedge³⁸ of land around a portion of the periphery (see Figure 8) would destroy the general setting and atmosphere, and that there would be a loss of "wildness" with the protected area essentially an artefact.³⁹ The loss of the bulk of the headland would thus lead to a loss of the various landscape values discussed in Chapter Six. It would also effect such activities as the surf break which as I made clear in 6.4.(i) was dependent upon the topography of the headland for shelter. Also, there was no prospect that ongoing externalities such as noise, dust, and the detritus from blasting, would be mitigated.⁴⁰

The restoration issue was also important. I noted in 8.2.(i) that some of the objectives established for the management of the area, were concerned with the restoration of the natural features of the covenanted area. However, the coalition contended that despite the

³² *Otago Daily Times* "Pact leaves eastern bluffs unprotected" 16 February 1990; *Tairi Herald*, 20 February 1990, "Further action proposed"; *Dunedin Star Weekender* 11 March 1990 "An open letter to Black Head Quarries Ltd."; Friends of Black Head, 15 February 1990, News Release, Dunedin.

³³ Sue Maturin, 2 September 1991, Personal interview.

³⁴ Friends of Black Head, 15 February 1990, News Release, Dunedin.

³⁵ *Ibid.*

³⁶ R. Cullen (Lecturer in Economics, University of Otago), 16 February 1990, Letter to Jeff Connell (Regional Conservator, DoC Otago), Dunedin.

³⁷ *Dunedin Star Midweek* "Field Trip to Black Head", March 14, 1990. Also: Sue Maturin (Friends of Black Head Spokesperson), 1989, Letter to Phillip Woollaston (Minister of Conservation), Dunedin, October 10.

³⁸ For on the landward side the quarry pit would ultimately rise up in 15 metre steps to the crest of the protected area.

³⁹ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin; Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview, Dunedin.

⁴⁰ *Ibid.*

exposition of this goal there existed no duty on either party to pursue the task of restoring the area. There was also no reference to the mechanics of how such an exercise could be undertaken.⁴¹

The access issue was similarly uncertain. Although within the settlement public access was established as an objective, the duty upon the Company was only to discuss this question. The FoB contended that no access to the formations would be allowed in the immediate future, and that this would preclude the enjoyment of the landscape values and other use values through visits to the area for a long time to come.⁴²

The *announcement* of the settlement was of fundamental concern to the conservationists because of its likely strategic effect. The Friends of Black Head had been holding out for a moratorium on mining in the vicinity of the coastal periphery of the headland, and ultimately, the permanent protection of at least all of the seaward faces. However, the settlement served to pre-empt the conservationists' strategy, which almost certainly ruled out the negotiation of a more comprehensive deal that could have protected the eastern bluffs and dealt with the access question in a more satisfactory way.⁴³

Finally, as I observed in 6.4.(ii), the Maori position throughout had been non-reducible, and the reaction of the Whanau-o-Otokia representatives mirrored that position. In a front page *Otago Daily Times*, Chris Baker commented "grossly offensive to tapu" and consequently the only acceptable solution would be the complete cessation of quarrying activity.⁴⁴ For others, the spiritual value of Black Head might persist despite some continuation of extractive activity. However, as with the aesthetic value, the destruction of the immense eastern bluffs and the wider setting would lessen the quality of experience gained by visitors to the area.

8.4. The 'Costs' of Conservation to the Company

As I stated at the beginning of this chapter, I draw heavily upon Cullen's economic analysis within this section. I do, however, discuss his investigation the context of the wider understanding of business power and behaviour contained in this thesis. This analysis will reveal that for the Company, entering into the covenant probably involved negligible costs, if not a net benefit.

8.4.(i) *The Economic Costs of the Covenant*

As a capitalist enterprise BHQ was without doubt motivated primarily by the pursuit of profits – the chase after exchange value. Thus, if their conduct in the negotiations was to be "substantively rational" (appropriate to the achievement of given goals⁴⁵) then they would in all likelihood have pursued strategies that on the whole maximised their financial gains and

⁴¹ P. Johnson (DSIR botanist, Dunedin), 22 February 1991, Personal interview. Also: Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview; Sue Maturin, 10 October 1989, Letter to Phillip Woollaston (Minister of Conservation), Dunedin.

⁴² Sue Maturin, 2 September 1991, Personal interview, Dunedin.

⁴³ *Ibid.*

⁴⁴ Chris Baker (Spokesperson for the Te Whanau o Otokaia), quoted in *Otago Daily Times* 16 Feb 1990.

⁴⁵ R. Bartlett, 1986, "Ecological Rationality: Reason and Environmental Policy" *Environmental Ethics* Vol 8, Fall, p. 224.

minimised their losses. This is not to say that other motives would not have affected their conduct – only that the accumulation dynamic would most probably have been central. To ascertain whether the Company acted in this way their actions need to be examined against the complementary criteria of cost-minimisation and profit-maximisation.

Some pressing questions are raised by the Company's exaggerated estimates of the cost of conservation. If the Company's \$30 million estimate is to be accepted as accurate, one would as a matter of course have to consider the Company's action in covenanting the area as a highly irrational move. This is most unlikely, and so the Company's actions in protecting the area only serve to confirm that the value of the quarry was far less than they claimed. As I have already maintained, the \$30m estimate must be understood as a deliberate tactic of negotiation. Further, both the Company and the Minister of Conservation, did at one time or another acknowledge that the figure was based on the *gross revenue* that would be derived if the 2.5 million tonnes of rock protected by the covenant had been *extracted immediately*. That they were aware of, on the one hand, the gross revenue factor, and on the other hand, the temporal issue (see below), only compounds the argument here that the discourse was distorted by business influence.

Cullen set out to determine the costs of conservation to the Company – viz. the approximate exchange-value of the rock protected. As I noted at the beginning of this chapter, these estimates are founded upon a single type of resource use – the extraction of rock – for which a market already existed. Cullen based his analysis on the following data⁴⁶:

Projected life of the quarry	90+ years
Output (1988)	192,000 tonnes
Retail value of the rock (1988)	\$12 per tonne
Costs	90-95 percent or approx \$10.80 per tonne ⁴⁷

The first step in his analysis was to calculate the annual surplus from the quarry operation; "If it is assumed costs are 90% of retail price we can calculate the net annual surplus from the quarry operation: that is its output multiplied by net revenue per tonne, equal to $192,000 \times (12 - 10.8)$, a total of \$230,400 per year".⁴⁸

As I noted above, the covenant had the effect of reducing the amount of rock that could, potentially, be quarried by 2.5 million tonnes. On the basis of the above annual quarry output that loss would equate to a reduction in the life of the quarry by 13 years to 77 years. He then set out two working assumptions: First, he argued that because the quality of rock was consistent throughout the whole structure (this was the case) one tonne of rock was a perfect substitute for any other; Secondly, if the protective covenant had no influence on extraction costs over the 77 years following the settlement, then the protective covenant

⁴⁶ R. Cullen, 1991, "Discounting the Economic Costs of Conservation and Compensation" *Environment and Planning A* Vol 23, p. 1123.

⁴⁷ It is important to note that the most significant cost in the production of aggregate was the transport costs (\$0.75 per tonne per kilometre). The Company frequently alluded to the fact that it was Black Head's proximity to the end users that essentially made it a profitable concern. This was true. However, the Company's assertion that there were no alternative sites available, was not true. *Ibid.* p. 1128.

⁴⁸ *Ibid.*, p. 1123.

would "only have a negative impact on the supply of rock, on company profits, and the New Zealand economy, in the year 2068, when the quarry ceases".⁴⁹

The crucial point was the costs of lost production would not accrue for a long time. The next stage of his analysis hinged on the assumption that "human behaviour indicates that we discount distant events".⁵⁰ This contentious notion underpins the theory of economic discounting, and I will not get into the debate over its application.⁵¹ The method is treated as legitimate in this context because it is a method that businesses such as BHQ and the parent companies regularly use when making investment decisions. In other words, I consider it appropriate to critique the Company's actions within the terms of their own discourse.⁵² Cullen goes on:

Using any chosen discount rate we can calculate the present value of the profits that will be foregone by the quarrying company. It is simply the sum of the discounted profits that would be earned between the years 2068 and 2080. If we assume the extraction rate and net profit in real terms will remain constant at 192,000 tonnes and \$230,400 per year, respectively, we can calculate the present value of the foregone profits. This is the present value of the annuity \$230,400 between the years 2068 and 2080.⁵³

The formula used by Cullen is set out in Appendix D. Table 8.1 (which largely follows that provided by Cullen) sets out the net present value (NPV) of the foregone profits from quarrying. It does so for both the southern cliffs that *were* included in the covenant, and for the eastern cliffs that were excluded. I will discuss the eastern cliffs next.

Table 8.1. Discount Rates and NPV of Foregone Profits from Quarrying⁵⁴

Discount Rate %	NPV \$	Discount Rate %	NPV \$	Discount Rate %	NPV \$
A. Southern Cliffs					
0	2 995 200	5	50 552	10	1 063
1	1 299 366	6	22 962	11	503
2	569 119	7	10 520	12	240
3	251 624	8	4 861	13	115
4	112 277	9	2 264		
B. Southern Cliffs + Eastern Bluffs					
0	5 299 200	5	118	10	3 449
1	2 419 732	6	240	11	1 751
2	1 118 245	7	57 150	12	896
3	522 860	8	27 911	13	463
4	247 272	9	13 770		
			6 859		

The inclusion of the eastern bluffs is useful because it provides an indication of how much the company would have foregone in NPV terms, if the covenant had extended to those important features – this is especially important because (as noted above) it was the

⁴⁹ Ibid., pp. 1123-4.

⁵⁰ Ibid., p. 1124.

⁵¹ An excellent summary of the debate over discounting and the environment can be found in A. Clayton, and N. Radcliffe, 1996, *Sustainability: A Systems Approach* Earthscan Publications, London, pp. 122-32.

⁵² An example of why a company such as BHQ would use this decision tool is provided by Clayton and Radcliffe: "One of the most important reasons for discounting is the existence of net productivity and interest rates. Capital invested today, at interest, will earn a profit. If the capital does not become available until tomorrow, then today's potential profit is lost. This is why high interest rates generally co-vary with high discount rates". Ibid., p. 123.

⁵³ R. Cullen, 1991, "Discounting the Economic Costs of Conservation and Compensation" p. 1124.

⁵⁴ Ibid.

exclusion of those bluffs that formed the main criticism of the settlement. The volume of rock involved would have been 1.89 million tonnes, which was roughly equivalent to a further 10 year reduction of the quarries life to 2058.⁵⁵

From the above values it becomes clear just how crucial the determination of an appropriate discount rate is to the approximation of the net present value of the resource. As noted by Cullen "conservation in this case is most likely to be judged economically defensible if high discount rates are used in the NPV (net present value) calculations".⁵⁶ He subsequently focused upon two rates. The first was the rate that was likely to be used by government in calculating the costs of an investment – in this case the cost of conservation – this was likely to be the public sector discount rate (PSDR) which was approximately 10 percent.⁵⁷ However, Cullen considered that rate to be unreasonably high given the much lower real long-term borrowing rate for government, and he instead suggested a figure of 5 percent would be appropriate.⁵⁸ The second discount rate requiring consideration was the rate applicable to the private sector, and Cullen observed that major companies in New Zealand were using much higher rates in the order of 13 to 15 percent.⁵⁹

So, according to Cullen, the conservation covenant had cost the company \$50,552 in NPV terms at the 5 percent rate. At the likely private sector rate of around 13 percent the NPV dropped to the paltry sum of \$115. Either way, these figures were only a fraction of the crude nominal estimates (ie. \$30 m for the covenanted southern cliffs) that were utilised in the negotiations and in the public statements made by both the Company and DoC. As a brief aside, it is also worth noting that the NPV costs of protecting the eastern bluffs and the southern cliffs at these two rates would have been \$522,860 and \$443 respectively.

As a final point here, it is appropriate to deal with the Company's other main objection to the option of protecting the eastern bluffs, which was that the quarry would be no longer viable if it was subject to those constraints.⁶⁰ Cullen noted, however, that there were other smaller local quarries operating profitably at the time.⁶¹

8.4.(ii) *The Economic Benefits to the Company of the Compensatory Quid Pro Quo*

Cullen's analysis suggests that BHQ's forfeiture of future income amounted to a fraction of the commonly perceived value. However, his analysis also incorporated the consideration of the potential stream of benefits that accrued to the Company from the second element of the agreement – the compensating *quid pro quo*. As I noted in my description of the settlement in 8.2.(ii), in addition to facilitating the ultimate protection of the covenanted area, the consent enabled BHQ to quarry the eastern bluffs with virtual impunity from prosecution under S. 244(3) of the *Harbours Act*. An important consequence of that dispensation was that it allowed the Company to quarry a large quantity of rock that it may not have been previously able to, without the threat of legal action. And, furthermore, there was the

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Compensation payments made by DoC under S. 15 of the *Conservation Act 1987* or Ss 62 and 105 of the *Public Works Act 1981*, were likely to use the public sector discount rate.

⁵⁸ R. Cullen, 1991, "Discounting the Economic Costs of Conservation" p.1126.

⁵⁹ Ibid.

⁶⁰ *Otago Daily Times* 16 February 1990.

⁶¹ R. Cullen, 1991, "Discounting the Economic Costs of Conservation" p. 1126.

potential for much reduced extraction costs resulting from that licence.⁶² The agreement established more liberal rules governing the ejection of quarry debris into the area within DoC's jurisdiction. Despite the conservationists' contention that it was the concession, *per se*, that would enable BHQ to quarry the eastern bluffs, this was highly unlikely. The Company would certainly have made efforts to quarry the area despite the strict regime.⁶³ But the consent would "give the Company more flexibility in its quarrying methods".⁶⁴ It can thus be concluded that the costs of extraction would decrease as a direct result of the agreement.

In his paper Cullen calculated the costs that would accrue to the Company from reduced cost of extracting the 1.89 million tonnes of rock in the eastern bluffs. His analysis was founded on the assumption that quarrying of the eastern bluffs would begin in 1995 and continue for twenty-two years. He suggests two alternative levels of cost reduction; the first is a decrement of \$0.30 per tonne, the second, \$0.12 per tonne.⁶⁵ Table 8.2 sets out the figures for each of the two hypothetical levels of cost reduction, each subject to a variety of discount rates.

Table 8.2. Discount Rates and NPV of Cost Reductions from the Harbours Consent⁶⁶

Discount Rate %	NPV \$	Discount Rate %	NPV \$	Discount Rate %	NPV \$
A. \$ 0.30 per tonne					
0	576 000	5	281 216	10	152 244
1	494 488	6	246 808	11	136 104
2	426 528	7	217 537	12	122 065
3	369 603	8	192 443	13	109 807
4	321 703	9	170 868		
B. \$ 0.12 per tonne					
0	230 400	5	112 486	10	60 897
1	197 795	6	98 723	11	54 441
2	170 611	7	87 015	12	48 826
3	147 841	8	69 775	13	43 923
4	128 681	9	68 347		

I will focus upon the same two discount rates as used before. At 5 percent the savings to the Company would be \$281,000 at a cost reduction of \$0.30 per tonne, and \$112,486 at \$0.12 per tonne. At 13 percent the savings are \$109,807 and \$43,923 respectively. But the most revealing consequence of the settlement is revealed when one subtracts the NPV of cost reductions from the foregone profits from quarrying the southern cliffs. Cullen provided the following table.

⁶² Ross Cullen (Senior Lecturer, Department of Economics, University of Otago), 16 February 1990, Letter to Jeff Connell, Regional Conservator, Otago Conservancy, Dunedin.

⁶³ The Company made it clear that it would have made use of appropriate technology to facilitate extraction in the vicinity of the coastal periphery. Indeed, a 'back actor' (a machine which drags material back from the edge) has been operating above the formations for some time: John Fulton, (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview, Fairfield, Dunedin. Also; Phillip Woollaston (Minister of Conservation), 6 April 1990, Letter to Sue Maturin.

⁶⁴ Phillip Woollaston, (Minister of Conservation), 6 April 1990, Letter to Sue Maturin.

⁶⁵ R. Cullen, 1991, "Discounting the Economic Costs of Conservation" p.1125.

⁶⁶ *Ibid.*, Note the discount procedure is the same as above. See Appendix D for discounting formula.

Table 8.3. Net Changes in Net Present Value at Various Discount Rates⁶⁷

Discount Rate %	NPV \$	Discount Rate %	NPV \$	Discount Rate %	NPV \$
0	2 764 800	5	-61 934	10	-59 834
1	1 101 571	6	-75 761	11	-53 938
2	398 508	7	-76 495	12	-48 586
3	103 783	8	-64 914	13	-43 808
4	-16 404	9	-66 083		

NB: These figures are calculated by subtracting the NPV of cost reductions at \$0.12 per tonne from that of foregone profits from quarrying the southern cliffs.

What is apparent from Table 8.3 is that at a discount rate of 4 percent or higher (both of the relevant discount rates used above are higher) the Company received a windfall profit from the settlement.⁶⁸

There was, therefore, a huge disparity between the general perception of the costs of the agreement and a more realistic assessment of those costs. It is useful to note the reaction of the participants to Cullen's calculations when they were introduced into the discourse.

I observed earlier that a primary reason why the discounting methodology is appropriate in this instance is because the method is regularly utilised by businesses when making investment decisions. That is, to use this method is to critique the Company's claims within the bounds of their own value discourse. However, when Company representatives were presented with Cullen's estimates they rejected them outright as being totally ridiculous.⁶⁹ From this response one can conclude either of two things: First, that the representatives were aware of the validity of the method, and ultimately a more realistic exchange-value of their resource, but chose to consciously reject the figures for strategic reasons (i.e. they would subvert their case) – the Company's dominant position as a price setter thus allowing them to control the content of the debate; The second possible interpretation is that the Company representatives were either unaware of the procedure, or could not understand the concept. It would seem that the most likely option would be the former as it simply was not in the Company's interests to allow the figures any validity within the discourse (that is if the Company was to act in a substantively rational manner in the pursuit of its goal of profit maximisation).

The Company's response served to shape those of the other participants. Some, such as the Mayor of Dunedin, mirrored the Company's complete rejection of the figures, labelling them totally unrealistic.⁷⁰ Others, such as the Minister of Conservation, while "appreciating the validity and value" of Cullen's methodology, noted that the figures could only be utilised as a negotiating tool.⁷¹ It should be mentioned here that by this stage the negotiations were already complete, with little hope of the renewal of discussion.⁷² Thus Cullen's figures were effectively redundant for such a purpose. The conservationists'

⁶⁷ Ibid., p. 1129.

⁶⁸ Ibid., p. 1128.

⁶⁹ John Fulton, (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview. Also: Jim Hunter, (General Manager, Black Head Quarries), 3 August 1990, Personal interview.

⁷⁰ Richard Walls (Mayor of Dunedin), 13 November 1990, Personal interview, Mayoral Chambers, Dunedin Civic Center.

⁷¹ Philip Woollaston, 11 April 1990, Letter to Dr Ross Cullen.

⁷² Ibid.

response is also of some interest. The Friends of Black Head dismissed the figures as impracticable noting that, the determination of the magnitude of any compensation would be concomitant with the provisions of the *Public Works Act 1981* and would essentially be contingent upon the negotiation of an appropriate market price.⁷³ It seems that even the conservationists had missed Cullen's point that the entire motivation for the application of the discounting methodology was to provide a market valuation that could indeed be used within the negotiation framework. So, for the purposes of the conservation case, the economic analysis came to nothing. However, for the present purpose – a critical appraisal – the methodology proves valuable.

8.5. Postscript: Johnson's 1994 Report

By May 1994 the Company had completed their work in the area above the covenanted area, thus ending the major phase of induced rock and debris fall down the outer faces. To establish some baseline data for the site vis-à-vis future regeneration and the need for remedial work, Dr Johnson (now working for Maanaki Whenua – Landcare Research) was contracted by the Otago Conservancy to conduct a botanical survey. That assessment also included general observations about the landscape impacts (although it is important to highlight that this assessment does not incorporate the ongoing destruction of the eastern bluffs that was central to the conservationists' objection to the agreement).⁷⁴ Johnson's observations can be summarised as follows:

Physical Changes. The crest of the slopes had been lowered to that of the line on Figure 8.1. Three types of rock-fall had resulted from that activity: First, sporadic falls of a few rocks at a time had caused a substantial impact. Many of the most notable formations were chipped from the bombardment, and the Roman Baths were filled with debris; Secondly, the dislodgement or disintegration of a mass of rock at one time had produced bouldery talus slopes. Some of those slopes were wholly of rock material; Thirdly, there had been local accumulation of stone chips and quarry grit in descent chutes. One overall effect of these three types of fall, had been to cause a net movement down-slope of existing soil deposits.⁷⁵

Botanical Changes. Twelve native shrub and tree species were no longer present at the site. Although far less abundant, some native woody plants had survived, and some of those species displayed an ability to re-invade disturbed slopes. A few of the native herbs and ferns listed in 1982 and 1986 were no longer present. There had been an apparent increase in native herbs and grasses, which had move in to colonise the disturbed areas, and there had also been an invasion of introduced weed species. Johnson warned that gorse should be kept at bay at all costs. While there had been very significant damage to the biota there were reasonable prospects for regeneration at the site if the Department of Conservation controlled some of the weeds and undertook an extensive replanting program.⁷⁶

⁷³ Sue Maturin, 23 November 1991, Personal communication, Dunedin.

⁷⁴ P. Johnson, 1994, "Black Head: Vegetation Condition After Quarrying" *Conservation Advisory Science Notes No. 95* Department of Conservation, Wellington.

⁷⁵ *Ibid.*, pp. 4-5.

⁷⁶ *Ibid.*, pp. 6-8.

As I noted above, Johnson's assessment was only a partial impact report. It did not include the important areas outside of the covenanted area, the seabed, or the fauna. Nevertheless, it is apparent that while the biota could regenerate, many of the formations within the area were lost or degraded, and that others such as the Roman Baths needed clearing of rubble.

8.5. Conclusion

The Black Head settlement effectively determined the long-term future of the headland as many of the effects would be irreversible. The fluted eastern bluffs continue to be quarried, and if the quarry remains economically viable over its projected lifespan, they will disappear altogether. The protected columns of the southern periphery are already damaged. While highly degraded the biota is the only element of the natural character that can recover to a degree with intervention. But overall there has been, and will in all likelihood continue to be, a loss of natural character (and if recognised, the intrinsic values). This loss which was recognised by the conservationists and Maori who participated in the dispute, would also affect the wider public and, indeed, future generations. However, for the quarry Company the situation is the reverse, they will probably accrue no net financial losses from the settlement itself, and there is a good possibility they will receive a financial windfall. That is, in addition to the profits that they will derive from the rest of their operation. This is contrary to the general presentation of the agreement as a fair solution involving a very generous compromise on the Company's part. It is because of this that I have portrayed the agreement as a Pyrrhic victory for those seeking protection of the area.

The Black Head dispute was a relatively small-scale conflict, the substantive issues were fairly straightforward, and the dispute played out within the relatively confined format of mostly bilateral negotiations. Not only did the Company prevail in terms of the substantive outcome, they retained a high degree of control over the process throughout. In the next Chapter I will set out to see how the eleven mechanisms/principles contained across the analytical framework can help explain these events.

A Critical Analysis of the Black Head Conflict

9.1. Introduction

The purpose of this chapter is to apply the theoretical elements contained within the analytical framework (Chapters Four and Five) to the Black Head study. This is a two-way operation involving, on the one hand, the use of theoretical precepts to explain, in some meaningful part, the processes and outcomes of that conflict, and on the other hand, to let the historical evidence reflect back upon the framework itself – to scrutinise the posited mechanisms of business dominance, and to signal those elements of the framework that are of greater or lesser explanatory value. In doing this the greatest difficulty is to detect or infer the exercise (or non-exercise) of these mechanisms within the ‘noise’ of the complex conjuncture.¹

Discussion follows the progression of the arguments within the framework. Hence, I begin with the issue of value-form. As I noted at the beginning of Chapter Four, the distinction between use-value and exchange-value, and in applied terms, commodified and non-commodified values, performs a dual function. First of it acts analytically as a broad ordering principle for the discussion of environmental politics. Secondly, it allows for a systematic connection to be made between socioeconomic function and environmental harm. Both of these aspects are dealt with in the context of the Black Head dispute. But the bulk of the chapter is concerned with the mechanisms of power set out in Chapter Five. Like discussion in that chapter, my investigation will progress from the strategic level of politics – that is, the general causal imperatives that are the subject of Offe’s schema – to the more specific generative mechanisms such as the matter of property rights or the dilemma of collective action.

9.2. Value-Form

As I made clear in Chapter Four, the discussion of value-form is only a preface to the central questions of the political schema – *the framework of business power and dominance*. The

¹ Remembering that the posited structural relationships, and specific mechanisms of business dominance, must be conceived as *transfactual* entities (Chapter Two).

application of the value argument to the case studies is largely a matter of a simple assessment of whether or not there was a general *fit* between the types of actors in the dispute and the types of value-holdings that motivated their political action. But I will also ascertain whether there was a noticeable *prima facie* connection between value-form and environmental harm – namely, were the commodified interests also the interests that potentially or actually resulted in the greatest environmental harm?

9.2.(i) *Commodified and Non-Commodified Value Arguments*

In the Black Head conflict, commodified values featured in the discourse in at least two ways; first in terms of the *articulation* or expression of the substantive arguments, and secondly, there was the matter of essential *motivations*. In respect of the former, conservationists did refer to the value of Black Head as a potential tourist site and resource (and by the end of conflict it was indeed on the itinerary of an eco-tourist operator). But there was never any attempt to put a dollar value on that use. The Company was the only actor that ultimately utilised commodity valuations as a substantive expression of value.

There was an even more marked correspondence with the value schema in terms of the actors' *motivations*. While the conservationists had alluded to possible commodified uses, none of their group was engaging in the dispute because of those values. Thus, BHQ was the only actor whose driving force was the "passionate chase after exchange-value". For the Company the dispute was solely about defending their investments in both the quarry operation and in their downstream enterprises that utilised the rock. Marx argued that "it is only in so far as the appropriation of ever more and more wealth in the abstract becomes the sole motive of his operations, that he functions as a capitalist".² On such an account BHQ was the only agent that can be clearly classified as having acted as a capitalist in the conflict.

Focusing, conversely, upon the non-commodified arguments further strengthens this assessment. Again, there were the two dimensions. In terms of the articulation or expression of value, non-commodified arguments were utilised by all of the actors in the conflict. The Company constantly referred to the use-values of the basalt resource. For example, the rock was incredibly dense and it was uniform in quality, or the vicinity (spatial characteristics) of the quarry in relation to the downstream operations and markets was valued. But as I noted in 4.3.(i), although the commodity is an entity of double form – and with the commodification of natural resources there will be a necessary material substratum of use – BHQ was ultimately concerned with the value of the commodity *in exchange*. The hardness of the basalt was only a means to an end, and the Company's interests were essentially financial. By contrast, the conservation campaigners articulated their interests through reference to a wide array of non-commodified forms of value. The Whanau-o-Otokia referred to spiritual, mahinga kai, rock gathering and other historical values. None of those arguments were expressed in money terms. The wider conservation case embraced a rich array of value types: The intrinsic and natural values arguments, including the scarcity, life-support, and species values; The crucial landscape values, including naturalistic and scientific interest (again largely predicated on scarcity) in both the

² K. Marx, 1958 (1867), *Capital* Foreign Language Publishing House, Moscow, pp. 152-3.

geological and botanical values, aesthetic arguments, spiritual values, etc.; And the various recreational values referred to the various uses such as surfing, diving and fishing. There were thus many languages of value articulated in the conflict.

Yet the significant issue here, as earlier, was that although BHQ referred to specific use-values of the headland (which were in themselves destructive consumptive uses) they did not pertain to its *essential* motivations. As I have already observed, the material characteristics of the basalt formation were only of interest in so far as they affected the overall profitability of the business, and not for their own sake. For the conservationists the situation was totally the reverse. They were essentially motivated by non-commodified interests, and where they did allude to money values they did so in the abstract – as unquantified potential benefits – and even then it was only *in support of* their essential interests. It is possible to conclude that there was a strong correspondence between the *type of social actor* in the dispute and their *type of value* holdings. Thus, for the purposes of the following political analysis, I will classify and treat BHQ solely as a capitalist enterprise, and the conservationists/Maori advocates in a residual sense as environmentalists/non-capitalists.

9.2:(ii) Value-Form and Environmental Harm in the Black Head conflict

The task here is to ascertain whether there was a *prima facie* connection between value-form and environmental harm – namely, were the commodified interests also the interests that potentially or actually resulted in the greatest environmental harm?

In Chapter Six I established that the escalation of quarrying activity at Black Head had led, and would continue to lead, to significant environmental damage. Damage that was in the greatest part irreversible; there was a loss in perpetuity to the natural and social worlds. It would also lead to the increased scarcity of such sites (on the basis of the geological values). There was, moreover, a tendential connection with the greater the quarrying activity the greater the consequent harm to the environment (although there were qualitative impacts in that quarrying at the seaward margins was considered a greater threat than on the inland side). By contrast none of the alternative uses proposed by the conservationists involved any apparent environmental harm. The only readily conceivable exception would be if the loss of rock production at the Black Head site were to necessarily lead to substitution from other sites, which in turn led to environmental damage elsewhere – but with the high number of potential sites around Dunedin that was doubtful. So, once again, there was a strong fit with my framework.

In Chapter Four I listed four ecological difficulties posed by the commodity form. All of those difficulties were of some relevance in this case. However I will pay particular attention to three of those. The first internal mechanism was the observation that the use-value/exchange-value split within the commodity form involves an inherent disconnection, and that no systematic relation exists between the two. I argued that the consequence of the blindness of exchange-value to the rich and manifold qualities of things, and to the peculiarities of the production process (other than in the minimisation of the financial costs of manufacture and maximisation of exchange-value), is that many environmental costs are subsequently externalised – they are not included within exchange-values. The production of aggregate at Black Head was a clear case of business externalising its environmental costs

whilst internalising (the private good) benefits. On the face of it, the move by the Company to place a covenant over a portion of the seaward faces (thus foregoing future production) can be seen as a move to internalise a degree of those costs. However, Cullen's analysis seems to negate that interpretation. The second ecological difficulty, is that commodity exchange is based upon a logic of equivalence (in the abstract) not one of reciprocity. The Company mined the headland and in return received profits. However, in that process nothing was returned to the headland. Finally, as observed by Harvey: "Money prices attach to particular things and presuppose exchangeable entities with respect to which private property rights can be established or inferred. This means that we conceive of *entities* as if they can be taken out of any ecosystem of which they are a part."³ For the Company, rock from any part of the headland was substitutable, regardless of its connection to the headland as a whole or any particular setting, or indeed as providing habitat for a distinct ecology. I make these three points to highlight that not only was BHQ the primary cause of environmental harm but that the way that the Company valued the resource was part of the process of causing that harm.

9.3. Business, State and Environment: Offe's Model

The power and politics element of my framework operates in two parts. The first phase works at the level of broad structural relations that persist between business, the state and other social agents (in this case environmental actors) in advanced capitalist societies. It is based upon 'state theory' – in this case the work of the post-Marxist/neo-Weberian Claus Offe – and it is, in great part, state centred. My intention is to examine in turn each of Offe's four general principles, to see (where they can be either observed or inferred) whether they operated and affected the pattern of events in the Black Head dispute. As I noted in Chapter Five, Offe and others such as James O'Connor and Jürgen Habermas, developed totalising models that predicted the emergence of legitimisation crises. However, I have sought to avoid that mistake by understanding the four principles in realist terms as transfactual tendencies within a stratified and open world. There can be no prediction as to how they will come together at any time, but their use may well explain *how* and *why* the patterns and outcomes of conflict in the Black Head dispute happened the way they did.

9.3.(i) Exclusion

The exclusion principle describes the division of labour that divorces the state from organising commodity production and assigns that task to the capitalist. The essential point here is that "political power is prohibited from organising material production according to its own 'political' criteria; property, whether in labour power or capital, is *private*".⁴ Two important caveats were made in the original discussion about this principle; (i) that this is a functional division that may not be obvious at the level of events (it is understood to be both tendential and transfactual), and (ii) that this division is constantly threatened by countervailing pressures on the state to secure the reproduction of capitalist relations – it

³ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* Blackwell Publ., Cambridge Ma, p. 153.

⁴ C. Offe, 1984, *Contradictions of the Welfare State* Heinemann, London, p. 120.

stands in a tensed relation with other elements of the schema. Nevertheless, this principle is absolutely crucial in distinguishing between, and indeed defining, both state and capital in the model of politics utilised here.

In the Black Head conflict this demarcation can be viewed on two levels. The first stratum is the contextual level of general state–capital relations during the period of the dispute. This period was in fact characterised by a comprehensive and sustained withdrawal of the state from its previously widespread involvement in commodity production.⁵ The neo-liberal economic reforms of the Fourth Labour Government were entirely consistent with, and driven by, the very exigencies that underpin the exclusion principle. However, the only explanatory value that can be derived from this in the case of Black Head, is that there was a general reluctance within the state to become actively involved in organising commodity production.

The second stratum is at the particular level of the actors involved within the dispute. The quarry production was wholly owned and controlled by a private enterprise, with all levels of the state (local, regional and national government, and the various agencies thereof) divorced from direct involvement in that process. Moreover, this had been so since quarrying began in the nineteenth century. There was, therefore, a strong correspondence between the exclusion principle described earlier and the manifest elements of the Black Head dispute (the level of events). The exclusion principle thus broadly describes the division of labour in the dispute, but it does not in itself tell us much about that division.

9.3.(ii) *Dependency*

The dependency principle is the straightforward acknowledgment that the strength of the capitalist state depends in some considerable part upon the strength of the economy as a whole. In Chapter Five I asserted that this dependence incorporates two interconnected elements. First, the material capacity of the state to make decisions, and act upon them, is predicated upon the resources that it extracts from private accumulation (and that the ability of the state to extract such material concessions will be dependent upon the *performance* of the economy itself). Secondly, that the state's legitimacy is, in great part, dependent upon the economy, and this in turn is a powerful motivation for the state to serve the interests of capital.

The dependency relationship functioned in the Black Head dispute at a number of levels. At the most general level, participating in the conflict were agencies of central government that were ultimately and wholly dependent upon tax revenues and finance from capital markets. At the regional level there were local government actors who were

⁵ That reform program is of much greater relevance to the Whanganui dispute (see 11.1.(ii)). On that crucial period of restructuring see for example: J. Boston, and M. Holland, (eds), 1987, *The Fourth Labour Government: Radical Politics in New Zealand* (first edition) Oxford University Press, Auckland; B. Easton, (ed.), 1989, *The Making of Rogernomics* Auckland University Press, Auckland; M. Holland, and J. Boston, (eds), 1990, *The Fourth Labour Government* (second edition) Oxford University Press, Auckland; J. Boston, J. Martin, J. Pallot, and P. Walsh, (eds), 1991, *Reshaping the State: New Zealand's Bureaucratic Revolution* Oxford University Press, Auckland; B. Roper, and C. Rudd, (eds), 1993, *State and Economy in New Zealand* Oxford University Press, Auckland; A. Sharp, (ed.), 1994, *Leap into the Dark: The Changing Role of the State in New Zealand since 1984* Auckland University Press, Auckland; J. Kelsey, 1995, *The New Zealand Experiment: A World Model for Structural Adjustment?* Auckland University Press, Auckland.

dependent upon a buoyant regional economy with a thriving community of rate payers. The strategic imperatives deriving from this dependency relationship undoubtedly served, at some fundamental level, to constrain the actions of the state in the conflict and possibly limited the options for the preservation of the headland (see 'maintenance' function). It is, however, extremely difficult to discern just how much of a constraint it was at the level of events. But one possible factor in explaining the extent to which the actions of each particular agent of the state were constrained in their actions could be the proximity of the respective decision-makers to their revenue base. Hence, the exigencies of the fiscal constraints were likely to be of more direct influence upon the mayor of Dunedin and local councillors than upon the regional manager of DoC. This is not to say that the actions of DoC were not fundamentally restricted by their budgetary obligations, but rather that the actions of the department were not largely dictated by the needs of the local economy. In addition to being funded out of the general tax revenues, DoC was also buffered from the demands or needs of capital by the normative prescriptions set out in its legislative mandate.

But ultimately, the 'dependency' relation is a deep structural imperative. It operates in the background, and certainly underpins some of the other mechanisms that are dealt with later. But in terms of explaining the specifics of an environmental dispute such as this, it is like the exclusion principle a blunt and indirect explanatory factor.

9.3.(iii) *Maintenance*

The dependency principle motivates the state in the performance of the crucial third element of Offe's schema – the maintenance function – whereby the state seeks to create, sustain and modify the conditions in which capitalists engage in production for profit. As I observed in the analytical framework, this role is carried out both in the broad context of the system-wide needs of capital, and the narrower contexts pertaining to fractions and/or moments of accumulation. I also asserted that particular patterns of accumulation establish crucial and specific impulses for state action (and, for that matter, in-action).

Of the ways that the state responds to the *system-wide* needs of capital, one stands out as having been of importance in shaping the Black Head conflict; the state's enforcement of property rights. The property rights issue will be dealt with at length in 9.4.(ii), but it is important to highlight that no matter how anomalous and anachronistic the Company's entitlements were, the state did not unilaterally act to constrain those rights. However, the maintenance role is best understood in the Black Head dispute in terms of threats to the orderly pursuit of profits.

The Black Head controversy arose out of the process of commodity production as the Company internalised the benefits of production and externalised its costs. The operation of the quarry had already caused significant environmental and harm, and would in all likelihood have even more deleterious effect in the future. These effects led to a public campaign whereby significant pressure was brought to bear upon the company. In the current context, that opposition amounted to a perceived *threat* to the process of profitable accumulation at the level of the individual accumulating unit – the capitalist firm. Unlike normal business competition this threat did not come from a rival capitalist enterprise, but rather, from non-capitalist interests. The agents of the state were subject to competing pressures; there was on the one hand, the imperative to protect the necessary

conditions for profitable accumulation, and on the other hand, the need to be seen as being responsive to the legitimate struggle and demands of environmental and other community interests (legitimation imperative discussed next).

A number of state actors participated in the dispute. At the central government level the principal agencies involved were the Mines Division of the Ministry of Energy and the Department of Conservation. As previously observed the regional offices of both departments exercised considerable autonomy in their approach to the problem. Yet the head offices and ministers responsible for each agency were frequently consulted, and certainly influenced their respective stances.

A significant feature of the dispute was the variance in the way the maintenance dynamic affected each state actor. The task of maintaining and sustaining the requisite conditions necessary for accumulation appears to be the primary dynamic that shaped the actions of the Mines Division. A number of examples from the case study illustrate this. First of all, there was the Division's call to minimise the potential loss of aggregate reserves and future production that would result if the conservationists were successful in protecting the headland. Indeed, the Ministry of Energy underlined the economic importance of the extractive resource through appeals to the public good (7.2). Secondly, there was the Division's approach to the safety question. As far as the Ministry of Energy were concerned the solution to the safety problem was simple – the public should keep away from the area until some unspecified date in the future when the quarry operations moved away from the seaward periphery of the headland. There was a clear bias because the hazards were being exported out into the adjacent areas held in *public* ownership, the company was obliged under the *Mines Act* to operate a safe quarry,⁶ yet the burden of change was to be borne by those members of the public who were quite lawfully in the vicinity of the headland. Thirdly, there was the organisational recalcitrance exhibited by the Division when it came to the compilation of a management plan for the area.⁷ Finally, during the early stage of the dispute the local mines inspector counselled the Department of Conservation not to enter the controversy (see 7.2).⁸

In contrast to the Mines Division which appeared to be driven in a pro-active way by the maintenance dynamic, the influence of the same imperative upon the Department of Conservation was one of constraint. Despite, on the one hand, a very clear conservation mandate – both in terms of statutory management and advocacy – and on the other hand, a very strong case for preservation in this instance, DoC still approached the issue tentatively. DoC representatives sought to reassure the Company and the public, that they wanted to avoid adverse repercussions upon business activity.⁹ The accusation that DoC was

⁶Quarry Regulations 1983 Regulation 10.

⁷A. Perrett (for the Regional Manager, Department of Conservation, Dunedin), 1987, Letter to John Walrond, Inspector of Mines, Dunedin, August 10. Also stated by: A. Perrett (for the Regional Manager DoC), July 1987, In an internal memorandum to Robin Thomas (District Conservator, Dunedin): "Mines have dragged the chain on this issue".

⁸John Walrond (Inspector of Mines and Quarries), 13 July 1987, Letter to Regional Manager Department of Conservation Dunedin, Ministry of Energy, Dunedin.

⁹ Jeff Connell (Regional Conservator, Otago Conservancy), 12 August 1991, Personal Interview, Department of Conservation, Dunedin.

inherently anti-development had dogged the Department from its inception.¹⁰ Another notable constraint was the way the maintenance imperative limited the options for preservation of the headland. The issue of property rights will be discussed in more detail in 9.4.(ii). However, it is crucial to acknowledge here, that private property rights remained sacrosanct in the dispute, with all the options for preservation consequent upon the voluntary action of the company. Another significant constraint upon state action was that of budgetary constraints. Huge demands were placed upon the small conservation vote, and there was very little discretionary spending available for the purchase threatened areas such as Black Head¹¹ – even if the headland were to be valued in adjusted NPV terms (which was never contemplated by the negotiators), the costs would have remained prohibitive (certainly at lower discount rates). The Department's representatives seemed to be constantly aware of all of these constraints upon their action and the statement that they had to acknowledge the "limits of the possible" captures their attitude.¹² The mandates of the two agencies were in conflict with one another, with each exhibiting a different response to the maintenance dynamic.

At the local government level, the Dunedin City Council too was affected by the maintenance dynamic. Like the Mines Division, the City Council sought to sustain business activity through the pro-active support of commercial enterprise. For example, the Council pursued a policy of interventionism through its ownership and management of the local authority trading enterprise's (LATEs¹³), and by nurturing business ventures in the region via its business development unit. Indeed, as I noted in Chapter Six, the Mayor of Dunedin, Richard Walls, emphasised that it was the responsibility of the Council to provide "economic leadership" in the region.¹⁴ These goals and activities coexisted with the Council's environmental and social functions. While Council representatives acknowledged that the destruction of the headland was undesirable, there was no subsequent move by any Council arm (such as a reserves department) to seek to protect what was a considerable conservation and recreation asset to the region. The local body organisation was much smaller than the central government apparatus, with the functional arms of the City Council contiguous, if not actually intertwined with one another. Furthermore, the mandates of those functional arms were not as clearly defined as those of central government, and they were without the support of a 'responsible minister' to defend their actions at the political level. Richard Walls, in his handling of the dispute, revealed these ambiguities of purpose. On a number of occasions throughout the controversy the Mayor paid lip-service to the widespread public opposition to the quarry, expressing his sympathies and support for the

¹⁰ See most recently: P. Hartley, 1997, *Conservation Strategies for New Zealand* New Zealand Business Roundtable, Wellington.

¹¹ Jeff Connell (Regional Conservator, Otago Conservancy), 12 August 1991, Personal Interview, Department of Conservation, Dunedin.

¹² Ibid.

¹³ Which could be seen as contravening the exclusion principle, and would in turn explain the movement to force local bodies to divest themselves of such enterprises. See J. Kelsey, 1995, *The New Zealand Experiment: A World Model for Structural Adjustment?* Auckland University Press, Auckland, p. 130.

¹⁴ Richard Walls (Mayor of Dunedin), 13 November 1990, Personal interview, Dunedin Civic Centre.

conservationist's case.¹⁵ However, such gestures were confined to rhetoric and he undertook no substantive action in defence of the landforms.

At the local government level the autonomy of the state to act in defence of environmental quality was especially constrained by the maintenance imperative. The most feasible explanation as to why local government was so susceptible to business influence would once again be the *proximity* of local decision-makers to the conflict. The position of the company in the local economy and its established links with local structures of government were discussed in 6.3.(i). With a thousand full time employees and a group turnover of \$150 m in 1990, Fulton Hogan was a very important business and employer at both the local, regional, and national levels. The parent companies received contracts from both the Silverpeaks and Dunedin Councils. Moreover, these were long established Dunedin companies firmly entrenched in the community power structure. I have already identified the dependency relationship linking the state and accumulation at this level. The corollary of this relationship was that local government was strongly predisposed towards the needs of the Company. The strategic consequence of that relationship was that the Dunedin City Council played no real part in the conflict despite the pressure of the conservationists.

An argument could be made that the tourism values of the headland should have been a motivation for the Councils. However, there are at least three reasons why the Councils were unaffected; (i) the tourism options were always discussed in hypothetical terms, (ii) no dollar values were attached to the suggestion, and (iii) it was the conservationists and not business who were talking about tourism – that is there was no established operator who could have mobilised any of the mechanisms of business influence discussed later.

The maintenance imperative does explain certain contextual elements of the Black Head dispute. Most notably the Mines Division's role in the conflict, certain limits upon DoC's agency, and the non-involvement of the Dunedin City Council.

9.3.(iv) *Legitimation*

It is imperative upon the State (in a liberal democracy) that it *be seen* to "pursue the common and general interests of society as a whole, allows equal access to power and is responsive to justified demands".¹⁶ This is the legitimatory function. Following Williams and Reuten, it is understood here that the legitimation of the State involves both the "specification of the content of *negative* Right through the framework of the law", and "a further *positive* specification of these rights – grounded in welfare policy and the institutions of civil society".¹⁷ The question then is just how did this dual process of legitimation manifest itself in the Black Head dispute?

¹⁵ Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview, Dunedin; Richard Walls (Mayor of Dunedin), 15 February 1990, Press Release, Dunedin.

¹⁶ C. Offe, in L. Lindberg, (ed.), 1975, *Stress and Contradiction in Modern Capitalism* D C Heath and Co., London, p. 127.

¹⁷ M. Williams, and G. Reuten, 1993, "The Political-Economic Transformations in Central and Eastern Europe: A Tragic Neglect of Civil Society" *Working Paper Series 2/93* Graduate School of Business and Government Management, Victoria University of Wellington, p. 16.

To begin discussion on the issue of legitimation I will suggest that the Black Head dispute arose to a limited extent because of the historical failure of the state to constrain the property rights of the Company. By the time of the dispute most of New Zealand's coastline was in public ownership (ie. in the form of a marginal strip or Queens Chain¹⁸), many quarry operations required a mining licence, and most natural resource based business activity was in some way regulated by planning rules. All of those normal mechanisms of constraint had to some degree emerged because of wider social interests in those areas; a *process of legitimation* (although they can also be said to have arisen because of the maintenance role). However, because BHQ was largely exempt from such constraints there was in a sense the historical failure of legitimation – to accommodate the interests of wider societal interests. Schrecker makes a relevant comment here: “The property rights from which corporations derive their authority do not, as a rule, depend on the continued or renewed consent of any party, but only on the legality of prior acquisition”.¹⁹ That is, the legitimacy of private property is in the form of negative right as opposed to positive right.

The next point to be made about legitimation is in terms of “mediating disputes and installing compromises between the requirements of accumulation and the need to stabilise and legitimate the system”.²⁰ Two state actors performed this function in the dispute. The Silverpeaks County Council (especially Les Cleveland, see 7.2 and 7.4) acted in the purest sense as a mediator, holding to no particular substantive position – their apparent motivation was the *resolution* of conflict. DoC's role in the dispute can also be partly explained by this need, as it sat between the polarities of on the one hand the Company and on the other hand the conservation advocates.

But DoC also functioned as an advocate.²¹ The Department of Conservation was to not only manage the Crown lands under its direct stewardship, but also to act as a wider conservation advocate. The existence of DoC and its mandate is wholly in line with the notion of *positive right* explicated in the analytical framework – the state is forced to open itself to non-capitalist interests, and it is obliged to make *material concessions* which may be immediately or partially subversive of capitalist accumulation. Indeed, the existence of DoC was, in some considerable part, a response to wider historical struggle by environmentalists.

DoC's mandate gave it the power to act, but its participation in this particular dispute, as with the earlier limited actions of the Reserves Rangers from the Department of Lands and Survey, was prompted and henceforth sustained by the vigorous lobbying of Maturin, Godman, Carter, Baker and others. The state responded to direct political struggle (this was through both direct lobbying and via lobbying of the local MP, Michael Cullen, as well as the Minister of Conservation Philip Woollaston). This was also a manifestation of *positive right*. DoC's role in the dispute was absolutely crucial to the (in this case putative) success of the conservation case. Because of its powers under the *Harbours Act* DoC was

¹⁸ S. 24 *Conservation Act 1987*.

¹⁹ T. Schrecker, 1985, “Resisting Regulation: Environmental Policy and Corporate Power” *Alternatives* Vol. 13, No. 1, p. 16.

²⁰ B. Head, 1984, “Recent Theories of the State” *Politics* Vol. 19, No. 20, p. 41.

²¹ Prior to the creation of DoC, the Department of Lands and Survey had a responsibility for the protection of natural features. Lands and Survey pursued this function in conjunction with sometimes conflicting developmental functions. The difficulties presented by this dual commission were subsequently removed through the restructuring of the environmental administration.

the only agent that was both able and willing to exert leverage against the Company (by contrast, the Mines Division was able but not willing). However, while it did indeed instigate legal proceedings, DoCs approach was always reserved. The Department proceeded cautiously, and ultimately strove to portray itself as a moderate and reasonable bargaining agent compared to the independent environmentalists.²² Also, there was a strong sense of its *legitimacy* deriving from the fact that it represented the broader public interest. But there was also a sense that the DoC decision-makers did not want to engage in an open conflict with an important local company (completely private as opposed to an SOE).

At the local government level the legitimization function was never strong enough to cause state agents to transcend the constraints of the maintenance imperative and actively seek the preservation of the headland. The Silverpeaks County restricted itself to the mediation role, and the City Council sat on the sidelines of the conflict.

The form *negative right* did not play any notable causal role. This form of right embraces the legitimacy that is derived from the framework of the law, for example, formal equality of process. While the dispute proceeded within the bounds of the law, there were no formal rights of participation or equality of process that guaranteed the conservation actors a role in the decision-making process. This is in contrast to the juridical process within the following Whanganui study.

One other point of interest vis-à-vis legitimization is in terms of the outcome of conflict. The general perception was that there had indeed been an accommodation between the needs of business and conservation. Yet Cullen's analysis suggests that business had given up little, if not gained financially from the settlement. The Minister of Conservation in a letter to Cullen had acknowledged the validity of his method of valuation, but dismissed its efficacy given the power of the Company to dictate terms. So, on the one hand DoC was considered successful in extracting a deal from the Company, but on the other hand the substance of that deal was quite different, and moreover, the Department were aware of that fact. This misconception was the key to the state's accomplishment of legitimacy function. Indeed, the state and the company were so successful that they had the conservation advocates doubting the validity of their own analyses of the agreement (see 8.4.(ii)). This is consistent with the idea that the state seeks to "convey the *image* of an organisation of power that pursues the common and general interests of society as a whole, allows equal access to power and is responsive to justified demands" [my emphasis].²³

The concept of a legitimization function does usefully explain some important elements of the dispute. Most significantly, it led to DoC performing dual roles as both a mediator concerned with the cessation of conflict and as an advocate for conservation values – motivated by a statutory mandate that had been the product of wider political struggle, and by the immediate political action of the conservation campaigners.

²² Although in the Black Head dispute this cautionary approach was partially explained by the limited legal options.

²³ C. Offe, in L. Lindberg, (ed.), 1975, *Stress and Contradiction* p. 127.

9.3.(v) *The Strategic Picture*

All four of Offe's imperatives can be seen to have been operating in some way in the Black Head conflict. The crucial issue, however, is assessing how useful they were in understanding business power in the dispute. The exclusion principle operated in the background by establishing the broad division of labour between business and the state. But it was of little direct explanatory value. Similarly, the dependency relationship describes a generic relation between the state and business, but its influence at any moment is difficult to infer. Although I did make the point that the closer unmediated relationship between local government and ratepayers could suggest a greater consciousness of the dependency relationship amongst those actors. Nevertheless, like the exclusion principle the dependency relationship operates as a secondary or deep mechanism, underpinning other elements of the framework. The maintenance role appeared to operate in three ways: First, it explains why the Mines Division (and their Minister) actively supported the Company in the face of a threat to accumulation; Secondly, it seems to have been a factor contributing to the conscious non-involvement of the Dunedin City Council in the dispute despite considerable community support for the issue; Thirdly, it acted to subtly constrain DoC's approach to the issue, which was particularly cautious. The legitimisation principle was also evident in a variety of ways, most distinctly, the dual role of DoC as mediator and advocate. Finally, because the settlement was widely perceived as an acceptable final solution to the dispute, opposition to the quarry was effectively destroyed. This meant that the state had succeeded in shaping an accommodation that would almost certainly preclude future threats to the productive enterprise from conservation interests. The state was highly successful, first in balancing the exigencies of accumulation with the need to accommodate competing interests, and secondly, in keeping the costs of conflict to a minimum.

9.4. Mechanisms of Business Dominance

I turn now to the more specific mechanisms of business dominance. As I noted in Chapter Five, each mechanism is understood to be at once vertically embedded within the wider structural dynamics theorised by Offe, and laterally connected with some, if not all of the other mechanisms.

9.4.(i) *The Business Sanction*

The business sanction is the strategic leverage that fractions of capital derive from the potential cessation, translocation, reduction, or even withholding of future, investment and production, within a given geo-historical context. It is a mechanism that operates on a continuum from overt and deliberate action to subconscious structures of in-action or constraint, and it is premised upon the *willingness and capacity to act* when their interests are threatened. It is also important to reiterate here that this mechanism ultimately rests upon the recognition that society is largely dependent upon resources created in the process of accumulation, and that the

task of organising this process is almost exclusively the task of the private capitalist. Hence, business can be said to perform "public functions".²⁴

The business sanction operated on two levels in the Black Head dispute. First it is probable that it functioned as a broad constraint. BHQ was itself a small business actor in the Dunedin economy with only 15 full time staff. Its importance was largely overstated in the dispute, in particular through the Company's inflated estimates of the quarry's worth (between \$50 and \$90 million). But in terms of its political power, BHQ cannot be treated in isolation from the parent companies; the company derived power *vis a vis* its position as a subsidiary enterprise within a wider complex of ownership. As I have noted already, Fulton Hogan had a thousand full-time staff and a group turnover of \$150 million in 1990. Palmer and Sons were much smaller with forty staff. Once again, both companies were firmly entrenched in networks of community power in the region (ie. as local body representatives, interlocking directorships, ongoing commercial relationships with the local authorities and informal connections). As with the dependency relationship, it is likely that local state actors were strongly disposed towards the needs of the Company, and that resulted in the Dunedin City Council's non-involvement and the Silver Peaks County Council's functioning as no more than a mediator. It probably also served to shape the wider public response to the issue, with the Company identifying their own interests with the needs of the region throughout the conflict.

The second level was in terms of the Company's willingness and capacity to act when threatened; the strategic level. Three examples are apparent. The first was in terms of BHQ's ability to determine which options were 'feasible' and which were not. The Company consistently stated that the protection of the area would have adverse consequences for production, and this would in turn have downstream consequences for the parent companies and the local community. One specific example, was regarding quarry size; John Fulton and others argued that the protection of the eastern bluffs would render the operation commercially unviable (although as Cullen pointed out there were other smaller operations operating quite successfully in the area(8.4.(i)). It was through this specification of the possible that the company established the baseline options in the decision-making process.

A second example, is that of the phenomenon of job blackmail. The Company continually emphasised that fifteen full time jobs existed at the quarry itself in addition to other jobs in downstream enterprises. It was implied that those jobs would be lost if the whole or any significant part of the area were to be conserved. However, three arguments undermined the Company's implied sanction; the quarry would not necessarily stop being commercially viable, there was a constant demand for aggregate, and the presence of other sources of supply. Even if the Company had to move away from the headland those jobs were probably not site specific. Yet the company never acknowledged this fact. Indeed, as I noted in 7.4, quarry staff turned out *en masse*, and got quite agitated at the public meeting held in the Otago Museum in 1989 – an act that suggests that the quarry managers recognised the utility of 'potential job losses' as a persuasive argument within their overall case.

The Company in its dealings with the FoB exercised a third form of strategic sanction – the environmental sanction. This was the implication that BHQ could in some way inflict

²⁴ C. Lindblom, 1977, *Politics and Markets* Basic Books, New York, p. 172. Also: C. Lindblom, 1982, "The Market as Prison" *Journal of Politics* Vol.44, p. 327.

punishment upon the conservationists. Such punishment would be exercised through the Company pursuing an unnecessarily hard-line approach that would rule out future options for the preservation of the headland, for example, by purposefully quarrying near the coastal faces, or by deciding to quarry to the limits of their legal entitlement.²⁵ BHQ's capacity to use this pressure was enabled by the liberal provisions of the resource regime, with few formal constraints upon the extractive process. However, while the Company had the ability to carry out such a threat their willingness to do so would have decreased over time as the momentum of the campaign built up and the negotiations with DoC developed. But it should be noted that even fairly weak threats might have some influence in circumstances where the effects of continued business activity are irreversible.

The business sanction thus worked on two levels: First of all as a broad form of constraint that potentially limited participation in the dispute; And secondly, it was used strategically, to determine what were seen as feasible options for conservation and to suggest potential job losses, and finally, the conservationists were wary of forcing the Company into a hardline stance that would see greater environmental damage (an impression the Company failed to dispel).

9.4.(ii) *The Double Privilege of Private Property Ownership*

In Chapter Five I asserted that a private property regime confers a double privilege upon its owners. On the one hand, there is the internal logic of the private right – a privileged relation of power over the resource and over the rest of society – and on the other hand, there is an external structural political-economic bias that creates, sustains and legitimates this type of property rule. I shall relate each of these elements to the Black Head study.

The immediate task is to examine the Company's property right. The property regime that governed the use of the headland was an extremely strong private property regime. First, the headland was held in freehold title – it was *private* property. Secondly, the fact that title to the land was acquired from the Crown in 1871 had two major implications; (i) there was no Crown reservation of minerals meaning that no mining licence was required, and (ii) there was no provision for a marginal strip along the coastline so quarrying could extend lawfully into the littoral zone. The third major factor was that since the quarry was operating prior to the *Town and Country Planning Act 1977* it was deemed an existing use and thus exempt from planning prescriptions that would otherwise have circumscribed the operations. The Company thus held a highly anomalous and anachronistic bundle of rights that facilitated a high level of protection for the Company's interests, placed few constraints upon their operations, and imposed strong concomitant duties upon other members of society to refrain from interference with the quarry. The Company's rights structure certainly constituted the *privileged form* private property.

The other area of consequence in a review of the Black Head property rights structure is the coastal strip contiguous with the seaward periphery of the quarry. The export of debris from the quarry encroached upon the rights that pertained to that area. The Crown owned the coastal zone that was administered by DoC – it was *public* property. This area was to a degree, protected by the provisions of the *Harbours Act 1950*, and it was the quarry's subsequent

²⁵ Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview.

infringement of this regime that facilitated the legal remedy that was to lead to the negotiated settlement.

That property regime performed a crucial role in shaping the conflict. As I established in Chapter Six, prior to the mid-1980s quarrying had relatively little impact upon the natural character the headland. No material spilled out over the seaward faces and as a consequence the quarry did not encroach upon the regime governing the coastal periphery. In addition, there was little public awareness of the headland's remarkable geological features, with the result that there were few stresses upon the existing structure of property rights. The conservationists' campaign for formal protection of the headland was stimulated by the rights structure; it was the property regime that facilitated the escalation in quarry production, allowed spillage over the coastal faces, and entitled the Company to potentially mine the area to sea level. Any accommodation of the conservation interests would inevitably involve modification of the existing rights structure by establishing constraints upon the Company's private use rights. Moreover, not only did the conservationists want the headland protected from irreversible effects, but they also wanted the right to *use* the headland, to have access to the benefits that would accrue from alternative uses.²⁶ The conservationists subsequently demanded recognition of their interests through the assignment of some form of common/public property rights over a part or whole of the headland. Such an assignment would necessarily require the taking, purchase or gifting of use rights from the quarry owners. In this way the conflict was manifest as a dispute over property rights. In the following discussion I shall review this conflict over rights, noting the influence of these structures upon the process and outcome of the dispute.

The nature of the property regime had two further effects upon proceedings; first, it affected the power of the disputants within the negotiation process, and secondly, it shaped the options for preservation. I will deal with each of these matters in turn.

To explain the impact of the property rights structure upon the negotiation process I will resurrect the notion of a BATNA (best alternative to a negotiated agreement). Throughout most of the dispute BHQ's BATNA was clearly preferable to a negotiated agreement. To a large degree this situation can be attributed to the property regime which guaranteed the security of BHQ's right to the use of the resource virtually regardless of external pressure. By contrast all the conservationists could do was lobby DoC to mobilise in defence of the Crown's interests in respect to the coastal zone. This begs the question of why BHQ engaged in negotiation at all, but can be explained in part by the rights structure, as it was the spillage of material onto Crown land that furnished DoC with the grounds for legal prosecution. It was the Crown's countervailing right that enabled DoC to commence legal proceedings and gain a degree of leverage by making BHQ's BATNA less attractive. Although it should be noted that the legal penalties for the infringement were relatively minor, and it was the *de facto* consequences of the prosecution, such as the costs of litigation and adverse public relations, that made the negotiation table a more attractive option for BHQ. Again this must be qualified by reiterating that once the parties entered into negotiations the company retained its capacity

²⁶A key issue here is one dealt with in Chapter Two, that is, the extent to which the competing uses were mutually exclusive. This question was a critical determinant of the forms of accommodation considered, and the equation finally agreed upon.

to hold command over the process. Ultimately, the structure of rights at Black Head ensured the preeminence of BHQ throughout the process of the dispute.²⁷

The paucity of legal options available to the conservationists also related to the structure of property rights. In 7.3. I outlined the main avenues that existed, and observed that no legal means dealt with the *essence* of the dispute, which was the substantive arguments about conservation and extraction. Instead, the disputants were forced to skirt around the issue, focussing upon subsidiary 'shadow' questions in order to force BHQ to negotiate. Moreover, even when BHQ and DoC set aside the prospect of litigation and engaged in substantive negotiations it was the rights structure that still determined the options. Indeed, the covenant option that was finally agreed upon can be clearly seen as a product of the exigencies of the property regime. It was obvious that any final option would require the *voluntary* consent of the company. Once this was clear, the strength of the property regime ensured the power of BHQ to set the terms and act as a price setter in negotiations. The Company would not sell a portion or the whole of the area other than for a vastly inflated sum, and consequently the options narrowed to the pursuit of a low cost solution that the company would agree to. Furthermore, such a solution would necessarily be founded upon the need to keep to a minimum any alienation of the company's use rights.²⁸ The Black Head negotiations tended to confirm Karl Polanyi's notion that "...markets are political structures in which property relations are realised in action".²⁹

I will briefly examine the settlement in terms of its effect upon the structure of rights. The execution of the conservation covenant established an explicit duty upon the company and the rest of society *not to use* the covenanted area in ways that would further violate its natural integrity. This was a non-use right, and was also significant because it did not involve a flow of rights from one agent to another. Essentially there was *no right to destroy*.³⁰ However, because the agreement did not adequately deal with the issue of public access, there was no conferral on the public of any use rights (only the possibility that that might occur in the future). Enjoyment of the alternative uses of the headland would be contingent upon the provision of access at a later date. The other element of the agreement, the harbours consent, involved a flow of rights towards the Company. DoC conferred on the Company a limited immunity from prosecution in respect of limited spillage into the coastal zone. This lowered the level of protection accorded to DoC's interests, and for the Company it implied an

²⁷ An interesting question with respect to the rights of adjacent property holders (in this case the publicly owned coastal area administered by DoC) is whether the conservation options and subsequent outcome of the dispute would have been any different if the adjacent land had been held in private ownership, say by another capitalist organisation?

²⁸ This is called a *property rule*: DoC was unable to take actions that interfered with BHQ without the latter's consent. Furthermore, the procurement of such consent would have required a large compensation payment – which under the circumstances would have been out of the question. BHQ thus held a right against the state and the rest of society that was protected by a property rule, and which subsequently explains BHQ's position as a price setter. The implication of such a rule for environmental conflict is that it always favours the property holder who is rarely the environmental advocate.

For an introduction to the various forms of property entitlements see: D. Bromley, 1978, "Property Rules, Liability Rules and Environmental Economics" *Journal of Economic Issues* Vol. 12, pp. 43-60.

²⁹ Cited in: N. Low, 1991, *Planning, Politics and the State: Political Foundations of Planning Thought* Unwin-Hyman, London, pp. 272-3.

³⁰ For an interesting engagement with the question of whether or not a property right entails a right to destroy see: R. Goodin, in G. Oddie and R. Perrett, (eds), 1992, *Justice, Ethics and New Zealand Society* Oxford University press, Auckland.

expansion of freedoms. This analysis reveals something of the directions of the flow of benefits. However, it is only when the value of those costs and benefits are considered that the agreement can be assessed, and as I demonstrated in Chapter Eight, the Company ceded far less than commonly acknowledged. The settlement thus stood as a concretisation of the underlying power relations that existed in the dispute, with a marked asymmetry between the power of business and the power of environmentalists.

In summary, BHQ held a remarkably strong private property right. That entitlement was efficacious in: First, stimulating the conflict by enabling the environmental damage to occur, and the possibility of much greater damage to persist; Secondly, enabling the Company to control the process – by determining who, where and when it would deal with other parties; Thirdly, allowing BHQ to shape the options for settlement, including defining the ‘limits of the possible’; And fourthly, by determining that the Company received a very favourable settlement in the face of considerable public pressure for change. The private property right was the most significant mechanism of business power in the Black Head conflict.

9.4.(iii) *The Unequal Distribution of Resources*

Charles Lindblom observed that business advocates enjoy a triple advantage over other civil actors in polyarchal politics; “extraordinary sources of funds, organisations at the ready, and special access to government”.³¹ The task here is twofold, to broadly identify the distribution of resources in each of Lindblom’s categories as they applied to the Black Head conflict, and to ascertain where possible, just how those distributions affected the strategic course of the dispute. While my focus is upon the nature and use of the resources possessed by BHQ, to speak of unequal resources is, perforce, to speak in relative terms, and hence my review covers the other main advocates. Before proceeding, however, it should be acknowledged that a large part of this present chapter has been concerned with resource questions. For example; the economic resources of BHQ, the Company’s importance in the local economy and the associated dependency relationship that the state has upon such resources, and private property rights as *resource* entitlements.

I will start by examining the Company’s resources. Once again, while BHQ was itself a small subsidiary enterprise, as a political actor it was inseparable from the parent companies; Fulton Hogan with a thousand full-time staff and a group turnover of \$150 million in 1990, and the much smaller Palmer and Sons with forty staff. Both companies were firmly entrenched in networks of community power in the region (ie. as local body representatives, interlocking directorships, ongoing commercial relationships with the local authorities and informal connections). BHQ could therefore draw upon a substantial pool of financial, organisational and political assets.

The influence that derived from those resources can be understood in two ways. First, there was the potential power that it represented. For example, the Company representatives may have had private reservations about the efficacy of defending the legal proceedings, but the outward appearance was that they were not only willing to defend themselves, but they possessed the financial resources to do so in the face of repeated prosecutions. The Company’s resources could thus act as a deterrent. The extent to which they did deter the other actors is,

³¹ C. Lindblom, 1977, *Politics and Markets* Basic Books, New York, pp. 193-4.

however, unclear – it certainly did not deter DoC from instigating legal proceedings and conveying the impression that they were willing to pursue the prosecution.

The other way was in terms of the mobilisation of those resources. The Company was satisfied with the *status quo* as it existed, and due to the Company's structural preponderance there was no foreseeable need for it to take an offensive stance. BHQ therefore pursued a reactive and defensive strategy in the dispute; it did not conduct a campaign, nor did it engage in any substantive lobbying. At a late stage in the dispute it did undertake some public relations initiatives. However that only involved liaison with the media at little cost. Organisational resources (mostly staff time) were used during meetings and negotiations, once again at little cost. In all likelihood the only significant financial costs were legal fees, the cost of having planning consultants compile the elemental plan and plans for the restoration of the quarried area, and to have Peter Constantine represent the Company in the public meetings. Probably the greatest tax on the Company was that the issue demanded a great deal of John Fulton's and Jim Hunter's time and energy. Both men observed that the issue took a personal toll.³² In sum, the resources expended by BHQ within the dispute, while not insignificant, represented only a small drain on the Company's resources. That they could so successfully minimise their procedural costs can be largely attributed to their existing position of strength deriving from the property regime. There was a crucial synergy between the two mechanisms.

The private conservationists, by contrast, possessed few financial, organisational or political resources. For the same reasons that the Company was able to be reactive in its defence of the status quo distributions, the conservationists had to pursue a pro-active strategy. With few structural resources and hence no real power the conservationists faced the difficult task of gaining the influence needed to bring about such change. Such influence would have to be derived through association, and the potential financial and political resources that could be mobilised through collective action (see 9.4.(v)). With no organisation already in existence, the conservationists had to initially devote their energies to this task, in addition to the task of raising the financial means needed for any form of political action.³³ Like many other conservation actions this lack of resources meant that the public campaign was organised not only to place direct pressure upon the company but also to recruit the state, with its considerable resources and rights, to their cause. The paucity of available resources also determined the tactics used by the conservationists in their campaign. They relied upon low-cost methods such as petitions, letter-writing campaigns, a profile-raising concert, media involvement (not through expensive advertising but rather by stimulating the controversy as a newsworthy 'issue'), and efforts to increase public awareness through trips to the site in question.³⁴ All these tactics required little formal organisation, and they probably benefited from having a small, highly active core group that could deal with the more intensive and sensitive efforts at lobbying and negotiation. The small core was also crucial for the coordination of the campaign, minimising internal conflict and making communication much

³² John Fulton (Chairman of Directors, Fulton Hogan Holdings Ltd.), 14 August 1990, Personal interview; Jim Hunter, (General Manager, Black Head Quarries), 3 August 1990, Personal interview, Logan Point, Dunedin.

³³ Neville Peat, November 1990, Personal interview, Ravensbourne, Dunedin; Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview; Lloyd Godman, 14 August 1990, Personal interview, Dunedin.

³⁴ Ibid

easier.³⁵ The conservationists' greatest resource was the willingness and ability of individuals such as Sue Maturin, who between 1987 and the settlement fought unceasingly for the headland. Without such commitment it is doubtful if the any measure of protection would have been conferred upon the headland, at least in the short term (and in the long term the natural character would have diminished thus reducing the force of the conservation argument).³⁶

One other matter that should be noted here is that the private conservationists devoted considerable energies to mobilising DoC to act on the issue. As a state actor DoC lies outside the business-civil actor divide theorised by Lindblom, but the resources of that agency were used in the dispute. Robin Thomas, and later Jeff Connell devoted considerable time to the issue. Moreover, the leverage gained by the legal prosecution was premised upon the ability of DoC to pursue the proceedings. DoC's political, organisational, and to a limited degree financial resources, were all relevant to the pursuit of the conservation case. There were, however, real constraints upon the resources that the Department could devote to the issue (for example, it did not possess the resources needed to purchase part or the entire headland).

To conclude, the asymmetry of resources that existed in the Black Head dispute meant that there were few constraints upon the Company's ability to act and many constraints upon the conservationists'. At the same time the disparity meant that there was little need for the Company to pursue a pro-active strategy. By contrast, the imperative for the resource poor conservationists was to maximise the potential for agency. This resulted in adaptive and dynamic strategies that were designed to achieve maximum influence utilising minimal resources. It is difficult to assess how successful the conservationists were in their efforts, although the final settlement can be taken as a measure of achievement – part of the headland was in fact saved from destruction. Nevertheless, the Company was greatly advantaged by its possession of superior resources.

9.4.(iv) *The Power to Define Reality and the Distortion of Communicative Processes*

In the Black Head conflict the Company retained a remarkable capacity to control the terms of the discourse and define reality. Indeed, it was very much like Schrecker's observation that "realism in this context ... is defined in terms of the realities of the company president".³⁷ I will first discuss the ways that the Company shaped the discourse of conflict, before focusing upon the general perceptions of the settlement and Cullen's analysis.

There were at least six ways in which the BHQ controlled the discourse in the conflict: First, there was the dominance of monetised values. While the conservationists were able to express their non-commodified values in the wider public arena, in the substantive process of negotiations the Company's valuation was paramount; Secondly, the Company was then able to consistently and successfully overstate the commercial value of the area. Indeed, as was revealed in Chapter Eight, they exaggerated the costs of conservation by many orders of magnitude; Thirdly, they withheld, and only reluctantly disseminated, crucial information about the quarry. The most notable example was the management plan issue where over a number of years the conservationists lobbied both the Company and the Mines Division, in an

³⁵ Ibid.

³⁶ Ibid.

³⁷ T. Schrecker, 1990, "Resisting Environmental Regulation: The Cryptic Pattern of Business-Government Relations" in R. Paehlke and D. Torgerson (eds), *Managing Leviathan* Broadview Press, Ontario, p. 186.

effort to get them to jointly prepare a management plan that would reveal the Company's plans for production (7.2.). This made it difficult for both the FoB and DoC to engage in a meaningful substantive dialogue with the Company; Fourthly, the Company was able to state that the protection of the eastern bluffs would render the quarry uneconomic when, as Cullen observed, other smaller quarries were operating successfully in the region; Fifthly, the Company was able to determine which institutional options for preservation were considered; And finally, and very significantly, they were able to exclude the private conservationists from the substantive negotiations, and in doing so they effectively suppressed the full expression of the conservation arguments. Together these examples demonstrate a marked ability on the part of BHQ to withhold, distort, disseminate and suppress information.

But it is the disjuncture between the general perceptions of the settlement and Cullen's discounted figures that provides the most invaluable insight into the way business power can distort the terms of discourse. While I have already made much of this divergence, there are two points I would like to reiterate. One is that the general perceptions of the settlement arose on the basis of the inflated valuations that the Company had used throughout the process, and on the basis of the \$30 m sum referred to by the Company upon the announcement of the settlement – the sum which was utilised in the media. So there was a very clear case of the Company's ability to determine the terms of discourse. The other issue was the general labelling of Cullen's figures as unrealistic – however that was on the basis of a reality that was being defined by the Company (8.4). The Company was clearly able to define reality and its ability to do so flowed largely out of its property rights.

There are two final observations that I will make here. The first is that none of the strategies of corporate activism identified by Beder seem to have operated within the Black Head conflict. This could have been because of the limited scale of the dispute, but it is also likely that the Company's strong position within the dispute meant that it did not have to be pro-active in dealing with the issue. The last point is that unlike the following Whanganui study, there was no formalised decision-making process that provided for public input and the scrutiny of parties' claims. The Black Head dispute may have proceeded quite differently if that had happened.

9.4.(v) *The Dilemma of Collective Action*

The starting point for my investigation of collective action must (following Olson's schema) lie with the basic distinction between the private good/interest and the public or collective good/interest. A general connection can be made between certain groups and the type of goods or interests that they seek. On the one hand, BHQ's primary concern was with the production of basalt aggregate for exchange. Thus in its collective efforts it was, at least in the first instance, motivated by private interests. On the other hand, the conservation and Maori participants were concerned, in the first instance, with collective or public interests. This is consistent with the original assertion that the locus of environmental conflict can be commonly seen as a conflict between interests in these two types of goods. The next step is to ascertain whether the incentive/disincentive structures that attend each type of good (in theory) actually worked to privilege business in its collective pursuit of its interests. Before I do so it is useful to recall that Olsen's model works from the basic assumption that collective action involves some costs, whether in time, money or labour (see 5.3.(v)). He argues that no 'rational'

individual will assume these costs unless two conditions are met; (i) that the likely benefits from participation exceed the benefits that would accrue without participation, and (ii) that the benefits exceed the costs of membership and participation.³⁸

Olson's model is useful in explaining both the Company's early in-action, its reluctant participation in the negotiations. In the early stages of the dispute BHQ and the parent companies (which I shall understand as a collective) were unresponsive to the conservation campaign – they simply did not act. This is largely explained by the first of Olson's conditions; namely, the benefits of not participating outweighed the benefits of participation (this is analogous to the BATNA argument mentioned earlier). BHQ's existing position of dominance meant that there was no need for it to act at all (this was largely a result of the property regime). However, the costs of not participating subsequently rose (ie. because of the prospect of legal proceedings and the effect on the Company's corporate profile) to the point that the Company decided that the benefits of engagement outweighed the costs. The private good element is relevant because those costs and benefits would accrue directly to BHQ, and hence the parent companies. The individual participation of the Company officials is explained by both the identification of their own interests with the Company's interests, and the simple fact they were paid to pursue those interests (the Company was able to dispense selective benefits). One final point is that the Black Head enterprise was only one of many investments held by the parent companies, and they benefited from the ability to mobilise their wider collective resources in defence of the Black Head quarry. Olson's model largely explains the logic of BHQ's participation within the dispute

Where BHQ began the conflict in a position of power with no immediate need to mobilise collectively, the converse applied to the public good advocates. They approached the issue from a position of weakness, and hence there was an absolute need to gain power through association to further their goals. The form of that collective action was the issue specific coalition. This involved costs such as time, money and labour. Indeed, for participants such as Maturin the personal costs were very great indeed. The Friends of Black Head was a fluid grouping that allowed the member groups and individuals to pursue their own strategies (for example, the Whanau-o-Otokia's separate approaches to the Company). At the core of that grouping was a committee of Maturin, Carter, Baker, and a handful of other committed participants. Some of those committee members were participating as representatives of organisations, and were thus able to call on the resources of those groups (for example, Maturin was the Chairperson of the Otago Branch of the Maruia society – a national conservation organisation).³⁹ As I noted in my discussion on resources earlier, the strategies that were adopted were relatively low-cost, and centred upon raising the profile of the issue by, among other things; seeking media attention, distributing pamphlets, and Lloyd Godman's national photographic exhibition. In addition, and crucially, Godman, Maturin, Carter and Baker directly lobbied the Company and DoC throughout.⁴⁰ The result of this political action was that the Friends of Black Head were able to extract a compromise of sorts; the southern slopes of the headland were protected from seemingly inevitable destruction. That

³⁸ M. Olson, 1965, *The Logic of Collective Action: Public Goods and the Theory of Groups* Harvard University Press, Cambridge Ma, pp. 1-52.

³⁹ Neville Peat, November 1990, Personal interview.

⁴⁰ Lloyd Godman, 14 August 1990, Personal interview, Dunedin.

accommodation was extracted because of the collective efforts. However, the issues here are first, the *relative need* to act, and secondly, the *relative ability* to act. Environmental campaigners, such as Maturin, will often have to make extraordinary sacrifices in the pursuit of their goals.

Olson's rational actor model can only partially explain why people acted collectively to protect Black Head. For example, it offers an explanation as to the form of the group – a small number of skilled and committed individuals who could each point to the value of their contribution. However, its greatest strength lies in its insight as to why people may *not* have participated (ie. free rider problems). That over 6000 people signed the petition in Dunedin yet the active membership remained small suggests this. That few people acted on the issue even though significant numbers supported the cause could be explained by the fact that (i) selective benefits were not offered, (ii) membership was not compulsory, and (iii) that the costs of participation outweighed the immediate benefits. Olson's model is important because it identifies a powerful structural mechanism at work – an underlying asymmetry in the incentive structures between capitalists and environmentalists.

But to elicit a greater understanding as to how public good advocates can *overcome* or mitigate that underlying asymmetry it is necessary to turn to explanations such as those of pluralists identified in 5.4.(v). Thus, there was a differentiation of roles in the coalition, with a core group in control, this core group acted as entrepreneurs and risk takers, they could call upon voluntary services of experts (for example, the legal opinion), they did not have to devote energies to maintain a membership, etc.

But, business was noticeably privileged, in that first it did not need to mobilise support as it operated from a position of privilege, and secondly, it possessed an existing organisation that it could mobilise in the pursuit of its interests at little cost. The conservationists did mount a vigorous and partially successful campaign. However it was undertaken at the great personal sacrifice of the core members⁴¹, and it failed to mobilise mass participation.

9.5. Conclusion: Business Power in the Black Head Conflict

In this chapter I have used the analytical framework to explain how the Company was able to prevail so overwhelmingly in the Black Head dispute. First of all there was a clear correlation between the study and the value-form arguments. Both the political split between business and conservation, and the substantive divide at the heart of the dispute, were described by the value-form distinction. I distinguished two levels on which value-form operated. One level was as an *expression* of value (means argument). At that level there was some crossover; BHQ did utilise use-value arguments, and the conservationists alluded (albeit in the most abstract manner) to the possible commercial benefits of protection. But in terms of distinguishing between social actors it is the level of the parties' *motivations* (ends) that is crucial. On that level it was only the Company that was motivated by the chase after exchange, and conversely, the conservationists that were motivated by various non-commodified interests. In addition, I also examined the connection between commodity valuation and environmental harm and

⁴¹ Neville Peat, November 1990, Personal interview; Sue Maturin (Friends of Black Head Spokesperson), 2 September 1991, Personal interview.

noted that the way the Company valued the resource at Black Head was in some part causative of the destruction. Most significantly, the way that BHQ internalised its benefits and externalised its costs.

I then proceeded to examine the power element. Because the Black Head conflict played out largely at the level of local politics, Offe's principles were somewhat limited in their explanatory power. However, it was also probable that those principles were shaping the behaviour of the local government actors. I concluded that the exclusion and dependency mechanisms operated in indirect and secondary (or deep) ways. That is, the exclusion principle accounted for the broad division of labour that tended to operate between the state and capital, and the pressure upon the state not to become directly involved in organising commodity production. The dependency principle described an undoubted relationship between the state and business across both state and local government actors. I concluded that strategic implications of that relationship were probably strongest at the local government level with the close relationship between the councils and BHQ and its parent companies. By contrast, DoC was relatively buffered from that pre-disposition. Of most use as tools of explanation were the maintenance and legitimation principles. The maintenance role clearly accounted for the actions of the Mines Division, probably explains the non-participation of the Dunedin City Council, and in some part DoC's hesitant approach to the issue. The legitimation role was articulated in two ways, firstly to motivate both the Silverpeaks County Council and DoC to act as mediators or intermediaries seeking the *resolution* of conflict, and most significantly, in mobilising DoC's actions as an advocate (response to political struggle).

The five specific mechanisms of business dominance were of more concrete explanatory power (although they were all connected in some meaningful way with the wider mechanisms). The business sanction did play some part, both as a general constraint upon the actors, and more concretely, in limiting which options for protection were feasible, the subtle exercise of job-blackmail, and the possibility of the environmental sanction. The role of private property was singularly the most important source of business dominance in the Black Head conflict. The Company held an anomalous and anachronistic bundle of use rights that in considerable part caused the conflict, and subsequently enabled BHQ to control the dispute process, and ultimately the options for preservation. There was a strong asymmetry of resources between the actors, although that was partly mitigated by DoC's advocacy on behalf of the conservation interests. One interesting point in respect of resources was that the power that the Company derived from its property right meant that it did not have to mobilise any significant resources in defence of its interests. As Cullen's analysis revealed the Company displayed a remarkable ability to define reality within the dispute. This happened throughout the conflict as BHQ constantly distorted the valuation of the headland and determined what options were technically and commercially feasible. But it is the disjuncture between the general perceptions of the settlement and Cullen's discounted figures that provides the most invaluable insight into the way business power can distort the terms of discourse. Finally, the dilemma of collective action was useful in explaining why the business acted collectively within the conflict, and why people may not have played active roles, however it cannot explain the commitment and sacrifice of the core conservation and Maori campaigners.

The analytical framework has thus been of considerable value in explaining the ability, exercise and consequences of business power in the Black Head dispute. Although elements of

the framework were of varied explanatory value, Offe's principles revealed some interesting relationships. However some of the insights were necessarily tentative because it was difficult to elicit a thorough picture of their operation (this was in some part due to the relatively small scale of the dispute and the paucity of documentary material). The operation of those strategic principles may be better understood on a larger scale and with greater attention to the wider political context. This is something I will pay attention to in the development of the following study of the Whanganui River Minimum Flows dispute.

The Black Head study provides a striking example of the ability of business to dominate both within the process of conflict and in terms of the substantive outcome. Much of that power flowed from what I have described as an anomalous and anachronistic bundle of private property rights. This does not necessarily imply that the ability of business to dominate was also anomalous, and it is envisaged that other mechanisms will come to the fore in other disputes. One final point is that the analytical framework is intended to be of value in explaining conflicts where business did not prevail, for example, by coming to understand the preconditions of the mechanisms of business power. The emphasis in this thesis is upon understanding the nature of business influence.

The Whanganui River and the Tongariro Power Development

10.1. Introduction

The Whanganui River minimum flows (WRMF) dispute of 1977-1992 was one of New Zealand's most complex and costly natural resource conflicts. The dispute centred upon the abstraction of water from the head waters of the Whanganui River for the purposes of hydro-electricity generation. As part of the Tongariro Power Development (TPD) water from the western watershed of the Tongariro massif had been diverted north through a series of tunnels (the Western Diversion) into Lake Rotoaira, Lake Taupo and ultimately the Waikato River, thus boosting the outputs of the Tokaanu power station at Turangi and the eight existing hydro stations on the Waikato. It was this taking of water and the consequential reduced flows in the Whanganui and its tributaries that formed the substantive basis of this dispute.

Like the Black Head dispute, the causal mechanics of the physical resource problem were extremely clear – abstraction of water leads to reduced flows. However, over the course of the following case study it will become evident that in every aspect the Whanganui River minimum flows issue was a far more complex dispute than the Black Head controversy. The challenge here is to disentangle the welter of competing discourses and layers of complexity that characterised this conflict, in order to 'get at' the mechanisms of business dominance which are the essential focus of this thesis. As with the Black Head dispute there are important elements of the case study which are not explained by the theoretical framework – for example, it is not a psycho-analytic model and therefore sheds no light on the function of personalities, nor does it fully explain the complexities of organisational behaviour. As indicated at the beginning of this thesis, these factors will not be ignored, rather the intention is to make studied judgments where it is considered appropriate. Finally, another consequence of the scale and complexity of the WRMF dispute is that due to the dictates of space it will be analysed on a more general level than the first case study.

10.1.(i) *The Structure of the Study*

Like the Black Head study, the Whanganui case study is carried out over the course of four chapters (see 3.3. regarding why I have taken this approach). In this first chapter I background the dispute with the principal aim of providing reference points for later analysis. The focus here

is upon the biophysical, rather than social, basis of the dispute. For a great part of the chapter I am concerned with the description of (i) the Whanganui River system itself, and (ii) the genesis and operation of the TPD. Then in the final section these two strands come together as I examine, albeit in a general manner, the effects of (ii) upon (i). In doing this I attempt to provide some baseline information against which later discussion of various flow management regimes (which were the substantive outcomes of each stage of the conflict) can be understood and assessed. Social factors do inevitably wend their way into the discussion. Most particularly, in describing the genesis of the power scheme I necessarily refer to historical sources and contexts of conflict (political, economic and institutional). While discussion in this chapter may seem ostensibly removed from the concerns of the analytical framework, a broad understanding of the substantive arguments and historical context is an absolutely necessary basis for the subsequent narrative of conflict and critical analysis. In Chapter Eleven I set out the arguments surrounding the abstraction of water from the Whanganui catchment system. The chapter is split into two. In the first section I deal with the arguments underpinning generation. Discussion progresses from the general to the specific. That is, I begin by examining the wider political-economy of electricity generation, before moving on to ascertain the role and value (commodified and non-commodified values) of the Western Diversion. In doing this I deal not only with the value question but also with the frameworks of ownership and control which affect the advocacy issues in the following chapter. The second section reviews the range of arguments for the retention of greater minimum flows. In Chapter Twelve I consider the processes and outcomes of conflict. The chapter is predominantly a historical narrative because that form of argument best presents the pattern and causal relationships of the conflict. Discussion is restricted to the period between the setting of an initial minimum flows regime in the early 1980's, and the March 1992 High Court decision on flow levels. The final chapter of the study is Chapter Thirteen, which is identical in structure to the final chapter of the Black Head case study. That is, it systematically reviews the WRMF conflict on the basis of the structural mechanisms posited in Chapters Four and Five.

10.2. The Whanganui River and Catchment

The Whanganui River and Catchment is a complex natural system consisting of numerous interconnected, interdependent and dynamic elements. The following review of the biophysical characteristics of the river and catchment is underpinned by this notion of a system – a theme and heuristic device that will recur throughout the case study. Such a conceptualisation is useful here. Where I might otherwise have considered such various natural features as geology, landforms, climate, hydrology, and biota in relative isolation from one another, I must now consider the arrangement of these elements in *relation to* one another. Similarly, it is important to present more than a static picture of these features – continual change (albeit at vastly differing rates) is an ever present feature of natural systems. The strength of this approach will be further revealed later in this chapter when I consider the scale and nature of the biophysical disturbances to the Whanganui River and Catchment system caused by the construction and operation of the Western Diversion.

Figure 10.1. The Whanganui River



On the basis of mean flow the Whanganui River is the second largest river in the North Island and the ninth largest in New Zealand.¹ It has a catchment area of approximately 7,120 km²,² and a total length of approximately 290 km, making it the third longest river in New Zealand.³

The Whanganui itself rises on the north-west slopes of Mt Tongariro (1968 m). The river flows 65km towards the north-west before turning southward at Taumarunui for the remainder of its journey to the sea. The following profile of the river system is structured on the basis of this pathway, and there is greater emphasis on describing the upper reaches. This is because the WRMF dispute centred upon disturbances to these upper reaches, with the associated assumption being that the effects of altered flows diminish the further one gets away from these point sources of disturbance.⁴ This structure also provides a greater sense of the physical processes and connections that function within the catchment system.

10.2.(i) *The Upper Reaches*

The diverted sub-catchment upstream of the intake structures and tunnels of the Whanganui diversion encompasses an area of about 320km², representing approximately 5% of the total catchment.⁵ This area can be generally characterised as a volcanic, high rainfall region quite distinct from the rest of the Whanganui watershed. Most of the area falls within the boundaries of the Tongariro National Park and other lands managed for conservation purposes, and exists in a state relatively unmodified by human activity.⁶ All of this area has a volcanic geology. Dominating the landscape are the three central volcanoes: the older multi-coned strato-volcanoes Tongariro and Ruapehu (2797m), and the younger, more physically active single cone of Ngauruhoe (2291m). The steeper slopes of these mountains are surrounded by lava ring plains, and throughout the area there is a sharp contrast of substrate between soft fine material and hard abrupt, often vertical, surfaces caused by alternating bands of volcanic rock and ash.

The significance of this mountainous sub-catchment within the context of the hydrology of the greater river system is due to a considerable extent to the high levels of rainfall experienced as prevailing north-westerly winds leave most of their moisture on the western slopes of the volcanoes. Annual precipitation in this area is usually in the region of 2200mm, with it raining an average of 184 days a year.⁷ Hence this small segment of the Whanganui catchment receives a large share of the total precipitation in the drainage basin. Furthermore, it also leads to considerable short term variability in run-off patterns in the head water streams.

¹ With a mean flow of 224 cumecs at the Paetawa river flow station approximately 30km upstream of the river mouth at Whanganui City. P. Rodley, 1986, cited in: D. Young, 1986, *Faces of the River* TVNZ Publishing, Auckland, p. 213.

² *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 5.

³ Department of Statistics, 1993, *New Zealand Official Yearbook 1993* Government Printer, Wellington.

⁴ As Petts notes: "Whilst head water streams are highly sensitive to catchment changes such effects may be buffered downstream due to mixing of runoff from unaffected or differently affected catchments." However this does not always follow: "alternatively, downstream the cumulative effects of a variety of changes may give rise to significant ecological impacts". P. Calow, and G. Petts, (eds), 1994, *The Rivers Handbook: Hydrological and Ecological Principles, Volume Two* Blackwell Scientific, Oxford, p. 9.

⁵ John Garrett (then Resources Technical Manager, Central Districts Catchment Boards), 1989, Evidence presented at Planning Tribunal hearing, p. 16.

⁶ Apart from the Whakapapa ski field and village.

⁷ Whanganui River Flows Coalition, 1989, Legal submissions in Planning Tribunal hearing, p. 6.

In addition to the Whanganui River itself, which rises on the upper slopes of Mt Tongariro, there are a number of headwater streams that are also diverted. Fast flowing mountain streams, with clear high quality water due to the relatively undisturbed state of this area, tumble steeply down the flanks of the mountains, cutting tortuous gorges through the rock and ash substrate of the surrounding plains. The most notable of these tributaries is the Whakapapa River which drains small glaciers and snow fields on the western slopes of Mt Ruapehu. This river is from time to time subject to floods of volcanic debris and acid water caused by lahar events in Ruapehu's crater-lake.⁸

Periods of volcanic disturbance have also influenced vegetation types in the National Park, with tussock, woody shrubs and flax dominating in the most affected central region, locked in a continual process of disturbance and succession. In other parts of this alpine sub-catchment beech forest predominates. At lower altitudes, as the streams near the Western Diversion intakes, the volcanic soils are richer and the climate milder. The Whakapapa River flows through dense, luxuriant podocarp forest in its gorge at the southern end of the Tongariro Conservation Park. To the north, the Okupata, Taurewa, Tawhitikuri and Mangatepopo streams, and the Whanganui River, flow off the lava ring plains, through patches of plantation forestry and into the Tongariro Conservation Park where their waters are also diverted through concrete intake structures (a description of the power scheme is set out later in 10.3.(ii)).⁹

In terms of size, the Whakapapa is the most significant of the headwater streams, being substantially larger than the Whanganui by the time it reaches their confluence at Whakapapa Island near Kakahi. The pre-diversion average flow (the natural flow) of the upper Whanganui River was approximately 3.94 cumecs (m^3/s),¹⁰ contrasted with 15.5 cumecs for the Whakapapa (readings taken at the footbridge flow gauging station 900 m below intake).¹¹ The Whakapapa River flows in its steep sided gorge for much of its course from the intake to the Whanganui confluence. The forested slopes on either side of the river remain undisturbed for virtually the whole of the river's length, with access down to the river being especially difficult in the section above the Otamawairua Stream. In this spectacular upper section there are numerous rapids, many graded 3-4 under average natural flow conditions.¹² Below the Piopotea stream the rapids are less severe (numerous rapids graded 2-3), and access to the less entrenched gorge becomes easier with private farmland to the west. Along this stretch the river flows past the Owhango, and later, Whakapapa Island scenic reserves, and the eastern bank falls mainly within the boundaries of the Tongariro Conservation Park. Towards the confluence with the

⁸ Such events may temporarily devastate the biotic communities in these streams. Wayne Donovan (Consulting biologist), 1988, Electricorp evidence, Catchment Board hearing, p. 5.

⁹ These forests were home to a diverse native bird-life, however introduced mammals such as deer, possums, cats, rats and stoats, had diminished bird populations, either through competition for food or through direct predation. Department of Conservation, 1990, *Tongariro National Park Management Plan: Volume One - Objectives and Policies* Department of Conservation, Turangi, p. 4.

¹⁰ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 126. The Planning Tribunal did not stipulate where exactly this figure was gauged. The mean annual flow of the Whanganui at the intake is only 1.6 cumecs according to Electricorp, but if you add the flows from the Okupata, Taurewa, Tawhitikuri and Mangatepopo streams then 3.94 cumecs is probably a good indication of the natural mean annual flow of the Whanganui upstream from Whakapapa Island.

¹¹ John Garrett (then Resources Technical Manager for the Central Districts Catchment Boards), 1989, Evidence presented at Planning Tribunal hearing, Appendix E, Table 1.

¹² Tony Parker (Director of Plateau Guides Ltd), 1989, Evidence presented at the Planning Tribunal hearing, pp. 8-9. The system used here to grade the river conditions is that used by canoeists and rafters, and is essentially a scale of navigability based upon such factors as channel morphology, substrate characteristics and hydraulic conditions. See Appendix F for an outline of the classification system.

Whanganui River at Whakapapa Island the landscape opens up and the river flows through paddocks dotted with isolated totara.¹³

From its diversion weir the upper Whanganui River flows in a north-westerly direction, at first through a relatively open valley which has been modified by logging and is today planted in radiata pines, and then on into the Tongariro Conservation Park. Winding its way in between forested hills, its volume increases with the waters of the Mangatepopo, Waione, Waipari and several other small tributaries. The natural flow is, as noted above, fairly small but because of the nature of the headwaters there is considerable variation of river levels.

From its confluence with the much larger Whakapapa River the Whanganui flows through rolling farmland until it reaches the small railway town of Taumarunui (1986 population: 6,354), which services the agriculturally based central King Country.¹⁴ In this stretch the river is wide and fairly shallow, braiding in places, and with the occasional deep pool. The bed of the river is made up of boulders and shingle (which has historically been extracted for various local uses).¹⁵ At Piriaka, approximately 10 km up-stream from Taumarunui, a concrete weir intersects the river and a substantial portion of the river's flow is diverted into a small 'run of the river' hydro-electric power station (installed capacity 1 MW) operated by the local territorial authority. The water is then returned to the main river channel.¹⁶

The quality of the water in this section is generally very high, especially in the reaches between the Western Diversion intakes and Whakapapa-Whanganui confluence. The clear blue-green water flowing off the central volcanoes is added to by clean dark water filtered through the floor of the Tongariro forest. Despite runoff from the cleared farmland below Kakahi, the water quality does not deteriorate significantly until Taumarunui and its confluence with the Ongarue River.

The essential biotic components of the lotic ecosystems of the headwater streams are: *Periphyton* – the “matrix of algae, bacteria, fungi, detritus, and inorganic particles” which is found upon the surfaces of stable objects within the stream;¹⁷ *Aquatic invertebrates* – which include, for example, various genera of the mayfly and caddisfly families which graze upon periphyton; and, *Fish and birds* – many of which depend upon the invertebrate populations as their primary food source. Furthermore, this is a relatively open system with terrestrial matter also entering the food web. There is scant quantitative data on the abundance of periphyton, invertebrate and fish populations of these upper reaches prior to water abstraction, a factor which hindered efforts to assess the physical impacts of the TPD. However it appears that in their natural state the upper reaches sustained a diverse and abundant stream life.¹⁸ The build up of periphyton (and hence the nature of the stream ecology) depends to a great extent upon loss

¹³ Ibid.

¹⁴ I use the 1986 figures because that date was just prior to the main period of the dispute. I would also like to mention here that the northern section of the Whanganui Catchment surrounding Taumarunui is part of the King Country. It has greater functional relationships with Te Kuiti and the Waikato than it does with the lower Whanganui Catchment area. James Clarke (Planning Consultant), 1989, Electricorp evidence, Planning Tribunal hearing, p. 6.

¹⁵ Wayne Donovan (Consulting biologist), 1988, Electricorp evidence, Catchment Board hearing, p. 15.

¹⁶ “A flow of at least 1.5 m³/s is retained in the river channel for environmental purposes. This section between the diversion weir and the powerhouse tailrace is about 1400m long and is known locally as the Piriaka loop.” Department of Conservation, 1988, “Whanganui River Minimum Flows Submission to the Rangitikei-Whanganui Catchment Board” Whanganui, Part 10, p. 2.

¹⁷ Ibid., Part 6, pp. 12-15.

¹⁸ Ibid.

processes, such as through sloughing and abrasion. This is largely determined by the current velocity. This explains the prevalence of thicker, darker (and to many observers unsightly) periphyton as the gradient of the river becomes less steep, most significantly in the stretch between Kakahi and Taumarunui.

Many of the twenty species of fish that have been recorded in the Whanganui River system penetrate well upstream of Taumarunui. In addition to trout (predominantly brown, although some rainbow in the Whakapapa), eels, lampreys and other native fish are also present in these reaches.¹⁹ Also, of much concern during the dispute was the welfare of the small but significant population of the endemic blue duck (Whio). This endangered species is one of only four specialist mountain-river ducks in the world, in the North Island it exists in only two isolated pockets, the most significant being the population centred upon the Whakapapa River.

10.2.(ii) *Taumarunui to Whanganui*

More than two-thirds of the Whanganui District is steep hill country, a sharply dissected landscape of deeply entrenched river valleys separated by razorback ridges. Structurally this region is a synclinal basin of tertiary sandstones and mudstones (papa), uplifted and tilted by a succession of earth movements so that the landscape slopes gradually towards the south. The soft homogeneous substrate has enabled smaller tributaries to branch out freely from the channels of the main consequent streams, cutting back into the plateau so that today a dendritic drainage pattern is clearly evident across the region.²⁰

The Whanganui River carves its southward path through this landscape. For most of the stretch between Taumarunui and Pipiriki the river flows in a deep inaccessible gorge, walled in between steep hillsides, high sandstone bluffs, papa cliffs and the remnants of "rock-cut terraces".²¹ David Young provides a vivid description of the riparian zone:

...the banks are often steep papa or sandstone, bare or covered in moss, liverworts, parataniwha and tangled festoons of kiekie. Sometimes the banks are broken by exotic openings, cracks, coves and caves, now yielding to tall and slender cascades, now breaking open to admit one of the river's tributaries. Behind the smaller plants and umbrella punga the cover rises magnificently into tawa, kamahi and rimu, rewarewa and occasionally rata and totara.²²

This forest cover reaches almost to the skyline on both banks of the river for virtually the whole length of the middle reaches. Since its gazettal in 1986, much of the stretch between Te Maire (15 km downstream of Taumarunui) and Pipiriki, and some discrete stretches between Pipiriki and Whanganui, flow through the Whanganui National Park. The National Park covers approximately 74,231 ha., and includes extensive and valuable tracts of podocarp/hardwood forest. The river is not, however, included in the National Park.

In addition to these large areas of protected land, a significant portion of the Whanganui District has been modified by human activity both prior to, and since European colonisation.²³ Today large areas of land previously logged or cleared for agriculture but always marginal due to the unstable and easily eroded steep-land soils, and the problem of isolation, has reverted to

¹⁹ Wayne Donovan (Consulting biologist), 1988, Electricorp evidence, Catchment Board hearing, pp. 9-15.

²⁰ D. Day, 'Landforms' in: B. Saunders (ed.), 1968, *Introducing Whanganui The Geography of New Zealand Study No.2*, Department of Geography, Massey University, Palmerston North, p. 30.

²¹ *Ibid.*, p. 30

²² D. Young, and B. Foster, 1986, *Faces of the River* TVNZ Publishing, Auckland, p. 17.

²³ For an excellent history see David Young 1998, *Woven By Water: Histories from the Whanganui River* Huia Publishers, Wellington.

scrub and regenerating forest. Pockets of farmland, mainly extensive hill country stations, still dot the landscape near the river and its tributaries, mostly in the stretches between Taumarunui and the Retaruke confluence (significant here is the 1200km² Ongarue catchment which is virtually all in pastoral production) and below Pipiriki with small settlements scattered along the river (Piriaka, Jerusalem, Ranana, Matahiwi, Koriniti etc.). It is below Piriaka that the valley opens out slightly and access to the meandering river improves with the river road. Towards the coast, and surrounding the city of Whanganui, there are gently rolling hills and flat-land mainly in improved pasture, with some areas of plantation forestry.

Over the 240 km of river between Taumarunui and Whanganui the river falls 160m, an overall gradient of 1:1500. In the section between Taumarunui and Pipiriki the gradient is 1:1150, dropping to 1:3300 between Pipiriki and Paetawa, and levelling out to 1:26000 in the final 25km stretch to the sea.²⁴ There are 293 rapids between Taumarunui and the lower tidal reaches, but no significant drops, which explains why the Whanganui is the longest continually navigable river in New Zealand. Navigation, at least by powered vessels such as the river boats which plied the stretch between Whanganui and Taumarunui from the late 1880s until well into this century, was facilitated by significant modification of the river channel through such means as the construction of concrete groynes to channel the flow, removal of snags and dredging of the stream bed in shallow sections.

Between Taumarunui and Whanganui the volume of the river increases notably as it is augmented with the waters of tributaries such as the Ongarue, Ohura, Retaruke, Tangarakau, Whangamomona, Manganui-o-te-Ao and other lesser streams. At the Te Maire flow gauging station just south of Taumarunui the pre diversion mean annual flow is 89.1 cumecs, more than double that at Piriaka 25km upstream. By the time the river reaches Paetawa, just upstream of the river's tidal limits, it has a mean annual flow of 219.4 cumecs.²⁵ The extreme variation of flows in the Whanganui is evidenced by the difference between an average annual seven day low flow at Te Maire of 28 cumecs and an average annual flood flow of 840 cumecs, the same figures for the flow gauging station at Paetawa are 46 cumecs and 2400 cumecs respectively.²⁶

Below Taumarunui there is a significant and continuous deterioration in water quality. The river becomes progressively more muddy in appearance as its sediment load increases.²⁷ In addition to the natural erosion of the soft sedimentary substrate in the river banks and channel, widespread forest clearance and the subsequent modification of land use within the catchment since European settlement has led to accelerated erosion and large increases in stream sediment loads and nutrient levels.²⁸ The biological quality of the river water is also significantly degraded in this section due to; the discharge of waste – the most notable point sources being primary treated sewerage from Taumarunui and untreated sewerage from Whanganui City, leachates from refuse sites, and the runoff of animal faecal matter from agricultural land. Such

²⁴ L. Krenek, 'Whanganui River' in: B. Saunders (ed.), 1968, *Introducing Whanganui The Geography of New Zealand Study No.2*, Department of Geography, Massey University, Palmerston North, p. 49.

²⁵ John Garrett, 1989, Planning Tribunal Evidence, Table 1a, p. 2.

²⁶ Tonkin and Taylor Ltd, 1978, "Water Resources of the Whanganui River" Report to the Rangitikei-Whanganui Catchment Board.

²⁷ L. Krenek, 'Whanganui River' p. 50.

²⁸ There are many historical reports which allude to the "clear waters of the Whanganui". Ibid. Such an increase in turbidity influences such factors as: "light penetration, depth to which photosynthesis can proceed, and visibility of sight-feeding fishes". G. Petts, 1984, *Impounded Rivers: Perspectives for Ecological Management* John Wiley and Sons, London, p. 88.

contamination has been a longstanding source of conflict in the Taumarunui and Whanganui areas.²⁹ Anecdotal evidence suggested that there had also been a decline in the native fishery (eg. lampreys, eels, bullies and smelt) of these reaches concomitant with the deterioration in water quality.³⁰

The city of Whanganui and harbour are situated just upstream from the river's mouth. In 1986, just prior to the WRMF dispute, the city had a population of 37,839,³¹ almost two thirds of the total population of 60,854 for the Whanganui River catchment (Taumarunui County and Borough, Waimarino District, Waitotara County, Whanganui County and Whanganui City).³² Whanganui is the major financial, service, and social centre for the lower catchment.³³ Finally, for Whanganui the direct economic significance of the river has varied considerably at different times, for example, the decline of the river as the principal transport route to Taumarunui and the interior obviously affected the town. Yet, as will become evident over the course of the study, the identity of Whanganui as a town, and later as a city, has centred upon the river to a degree that transcends its economic significance.

10.3. The Tongariro Power Development (TPD) and the Western Diversion

10.3.(i) *The Historical Development of the TPD and the Western Diversion*

The design and construction of the TPD was ultimately driven by the need to provide for a projected shortfall in generating capacity. The post-war boom of the 1950s saw the New Zealand economy expand at an unprecedented rate, which in conjunction with technological development led to a sustained increase in consumer demand for electricity.³⁴ Official projections foresaw the continuation of this trend, with the prospect of power shortages by the early 1960s and beyond. To those responsible for electricity planning it was imperative that new generating plant be brought on line as soon as possible. In the North Island the potential of the Waikato River was almost fully exploited by existing hydro-stations and stations under construction, and the engineers of the State Hydro-electric Department thus turned their attention towards other rivers.³⁵

The idea of diverting water from the upper reaches of the Whanganui Catchment northwards into Lake Taupo in order to boost the generating capacity of the Waikato hydro-stations was first raised in 1947 by an engineer working in the Taumarunui office of the State

²⁹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 109.

³⁰ Department of Conservation, 1988, "Whanganui River Minimum Flows Submission to the Rangitikei-Whanganui Catchment Board" Whanganui, Volume 2, Part 6, pp. 9-13.

³¹ James Clarke, (Planning Consultant), 1989, *Electricorp* evidence, Planning Tribunal hearing, p. 11.

³² *Ibid.*, p. 5.

³³ *Ibid.*

³⁴ The period of sustained economic growth between 1945 and 1973 is commonly referred to as the 'long boom'. Between 1954 and 1974 the average annual increase in real GDP was 4% compared with 1.9% during the following decade. Brian Roper in: B. Roper, and C. Rudd, (eds), *State and Economy in New Zealand* Oxford University Press Auckland, p. 2, Table 1.1.

³⁵ The State Hydro-electric Department was established by the Electricity Act 1945. It became the New Zealand Electricity Department in 1958, and was responsible for the generation of electricity. Responsibility for the construction of power projects rested with the civil and power engineering divisions of the Ministry of Works. A high degree of collaboration existed between the two agencies. L. Cleveland, and A. Robinson (eds), 1972, *Readings in New Zealand Government* A.H and A.W Reed, Wellington, p. 37.

Hydro-electric Department. Official response to the proposal was initially guarded, yet there was enough interest to ensure that the concept was explored further. Preliminary studies were conducted and the scope of inquiry subsequently widened to the possible diversion of water from the whole central volcanic region above 650m.³⁶ By 1955 the Government was sufficiently committed to the proposal to engage consulting engineers Sir Alexander Gibb and Partners of London to conduct detailed investigations. The consultants produced a preliminary report in 1957 detailing various options and potential power outputs. Concurrent analysis of the scheme by Ministry of Works officials established that the project was not only technically but also economically viable.³⁷

The fullest exposition of the Government's strategic planning for hydro development at the time was set out in the 1958 white paper on electric power development.³⁸ The document dealt with the range of generation options (including nuclear power) that were potentially available to provide for the projected short to medium term increase in load growth. A significant portion of the white paper was devoted to the TPD (then referred to as the Upper Waikato Development) and it is apparent that the scheme was favoured by decision-makers for a number of important reasons. First of all, it would be possible to undertake the construction of the project in a series of discrete stages, meaning the scheme could begin to contribute power to the North Island grid well before its ultimate completion. Secondly, construction of the TPD would place little or no call upon overseas funds.³⁹ Thirdly, and consequentially, the long term hydro-development of the Waikato River was nearing completion and there would be a large skilled work-force to draw upon. And finally, the proposal to lay a power cable across the Cook Strait, thus enabling the North Island to draw upon the vast hydro potential of the South Island, had for the time being been deferred. All these factors combined to convince decision makers of the efficacy of the proposal.

It is difficult to determine the exact point at which the decision was made to proceed with the detailed design, and construction, of the TPD. Although formal Cabinet approval for the construction of the first three stages of the project was given as late as September 1964,⁴⁰ it is evident from government actions that the development was a virtual certainty well before this date. In October 1958 legal authority for the construction and operation of the scheme was granted by an Order in Council issued pursuant to Section 311 of the *Public Works Act 1928* (presented in full in Appendix G).⁴¹ The Executive Order vested the Minister of Electricity with a sweeping authority:

...empowering the Minister to raise or lower the level or divert the waters of the rivers concerned and of any tributary lake, river, or stream and so make use of the whole of the Waikato, Whanganui and Rangitikei Catchment areas for hydro-electric purposes, to construct incidental and related works such as dams, tunnels, transmission lines etc., and to sell the electrical energy generated.⁴²

³⁶ J. Martin, (ed.), 1991, *People, Politics and Power Stations: Electric Power Generation in New Zealand 1880-1990* Bridget Williams Books and Electricorp, Wellington, p. 221.

³⁷ *Ibid.*, p. 224.

³⁸ Report of the State Hydro Electric Department for the year ended 31 March, 1958, *Appendices to the Journals of the House of Representatives* D-4.

³⁹ This was a critical factor as the New Zealand economy had slowed and overseas reserves were low at this time.

⁴⁰ J. Martin, (ed.), 1991, *People, Politics and Power Stations* p. 226.

⁴¹ See: 1958, *New Zealand Gazette* Vol. 3, No. 66, pp. 1463.

⁴² Office Solicitor, Ministry of Works, October 10, 1958, Internal memorandum to the General Manager recommending that the Order in Council receive the Governor General's signature.

According to the Government, the Executive Order was a legal formality that enabled the technical investigations to proceed (ie. to provide for the installation of flow gauging stations, drilling operations etc.).⁴³ Yet the comprehensive delegation of powers authorised by the Order in Council not only facilitated the detailed investigations but also, over the following decades, formed the substantive legal basis for the entire TPD. That the Government was committed to the project at this early stage is also suggested by a second action, the provision for increased generating capacity in the design of some of the Waikato stations on the basis of the potential increased base flows that would result from the TPD.⁴⁴ Such additional expenditure would not have occurred if there had been any real uncertainty.

In promulgating the Order in Council, the Crown vested in the Minister of Electricity an expansive range of use rights. On a general level these rights enabled the construction and operation of the entire TPD. But of most direct relevance to this case study is the establishment of an unfettered right to abstract water from the headwaters of the Whanganui River for the purposes of hydro-electric generation – a right which was, most significantly, granted in *perpetuity*. This authority to take and divert natural water was subsequently recognised in statute by S. 31 of the *Water and Soil Conservation Amendment Act 1973*. The implications of this allocation of use rights will be discussed in a later chapter.

As noted above, the mandate for hydro-planning and development lay with the New Zealand Electricity Department (NZED) and the Ministry of Works and Development (MoW). Both agencies were ultimately driven by the exigencies of economic development, charged with the responsibility of constructing and maintaining strategic economic infrastructure. It is not surprising in this context that these development functions overshadowed the regulatory responsibilities of these agencies. This strategic mandate meant each organisation was in a powerful institutional position, with decision-making power further enhanced by their large scale, highly centralised and hierarchical organisational structures. The planning process proceeded within a development oriented and tightly focused bureaucratic framework, which as has been observed, was almost solely concerned with technocentric criteria. Furthermore, these monolithic agencies were at the time unfettered by environmental and planning legislation and thus did not need to obtain the consent of local authorities, examine environmental and social effects, and nor were they required to undertake meaningful consultation. In this context there was little scope for public involvement in the decision-making process. Nevertheless, some consultation did occur and it is appropriate to detail the nature of those discussions, not only because of their substantive impact upon the shape and operation of the final scheme but also to help reveal the extent to which the WRMF dispute was a legacy of the inadequacies of the original planning process.

Inter-departmental discussions during 1955 identified a number of interests that would be potentially affected by the construction of the project, principally “tourist fishing interests and the land and fishing rights of the local Maori landowners, particularly the Ngati Tuwharetoa”.⁴⁵ An

⁴³ Ibid.

⁴⁴ In 1960 a well known contemporary academic and activist, Dr John Salmon, noted: “The chain of Waikato power stations was designed to use more water than normally flows in the river”. Undoubtedly a clear indication that the Tongariro development was a foregone conclusion from the mid to late 1950’s on. *Heritage Destroyed: The Crisis in Scenery Preservation in New Zealand* A.H. and A.W. Reed, Wellington, p. 89.

⁴⁵ J. Martin, (ed), 1991, *People, Politics and Power Stations* p. 223.

initial meeting was held in October of that year at Hirangi Marae in Turangi focusing upon the TPD and Lake Rotoaira (but not about the plans to build a construction town at Turangi). But then things went quiet, and by the time Ngati Tuwharetoa were again consulted, construction had already commenced on the project. This process has most recently been the subject of a successful claim to the Waitangi Tribunal.⁴⁶ But while the power planners made some small effort to consult with those affected parties with recognised use-rights and property entitlements over land, the issue of water use was perceived as subsidiary or inconsequential. Hence discussions did not include a wider representation of stakeholders within the potentially affected catchment areas.⁴⁷ Stakeholders from the Whanganui catchment had little, if any, substantive input during this formative period despite the publicly aired concerns of groups such as the Waimarino Acclimatisation Society (responsible for the trout fishery in the upper Whanganui catchment).⁴⁸ Most significantly, the Tangata Whenua – Te Atihau-nui-a-Paparangi – of the Whanganui River were not consulted during this design phase. An often repeated anecdote from this time is of the public meeting held in Taumarunui with the electricity officials from Wellington in attendance. When Mr Hikaia Amohia – kaumatua, kai korero and rangatira of the upper Whanganui – rose to speak he was promptly asked to sit down.⁴⁹ The planning process certainly followed a top down methodology.

The Taupo-Tongariro trout fishery was one notable area where concessions, other than for engineering and economic considerations, were made during the design phase. However the means used to protect the fishery were essentially operational rather than in construction – Lake Rotoaira (an important feeding ground) was to be managed within its natural levels, and after research by the Wildlife Branch of the Department of Internal Affairs and the Marine Department a minimum flow was set for the Tongariro River. In contrast, the upper Whanganui-Whakapapa fishery received scant attention, a fact which was noted by the newly formed Nature Conservation Council in 1963.⁵⁰

At a wider level, during the late 1950s and early 1960s there was increasing public concern about the impacts of hydro-development ('the great hydro-electric era'⁵¹). The conservation movement labelled the massive civil works programme 'state sponsored vandalism', highlighting the devastation that resulted from such acts as; the raising of Lakes Monowai (in 1925), the lowering and subsequent raising of Waikeremoana (1948), the complete hydro-development of the Waikato River (including the inundation of the spectacular geo-thermal area at Orakeikorako, and the drowning of the Aratiatia Rapids), and the potential impacts of

⁴⁶ Waitangi Tribunal, 1995, *Turangi Township Report 1995* (Wai 84), Brookers, Wellington, Ch. 2.

⁴⁷ During the long boom of the post-war period it became increasingly apparent that the existing (indeed to a great extent absent) institutional mechanisms for dealing with the management of water resources were woefully inadequate when faced with the escalating demands of users. This procedural lacuna was not dealt with until the enactment of the *Water and Soil Conservation Act 1967*. A detailed history of the development of institutions for water and soil management in New Zealand can be found in: M. Roche, 1994, *Land and Water: Water and Soil Conservation and Central Government 1941-1988* Historical Branch, Department of Internal Affairs, Wellington.

⁴⁸ J. Martin, (ed.), 1991, *People, Politics and Power Stations* p. 223.

⁴⁹ Cf. D. Young, 1989, "River of Great Waiting" *New Zealand Geographic* Vol. 3, July/September, pp. 95-115.

⁵⁰ J. Martin, (ed.), 1991, *People, Politics and Power Stations* pp. 224-5.

⁵¹ R. Noonan, 1975, *By Design* Ministry of Works and Development, Wellington.

proposed schemes such as the TPD and the Manapouri development.⁵² A major source of discontent was the nature of the planning *process* which, as in the case of the TPD, served to marginalise the public from decision-making and prevented the inclusion of a wider range of values in the planning function. It is, however, doubtful that this increasingly vocal body had a significant impact during the design and construction stages of the TPD. Any concessions to the conservation lobby came later and in the form of changes to the operating regime.

Bureaucratic obfuscation, specifically the suppression of detail about the form of the scheme and the status of the decision-making process, limited opposition to the project during the design phase. However the publication of the 1963 Power Planning Report, which described the project and set out a provisional timetable for construction, raised the profile of the scheme and stimulated concern among groups which had hitherto been silent on the issue (for example, the Whanganui River Scenic Board and the Whanganui Harbour Board). The ante was further increased when the Minister of Electricity, Tom Shand, announced approval in principle for the first three stages of the Development (April 1964) and later that year when formal Cabinet approval was given (September).⁵³ Clearly a *Catch 22* situation prevailed; where previously public involvement had been stifled by a lack of information, by 1964 the situation was quite the reverse – plans were fully formed, technical investigations were at an advanced stage and construction of the Western Diversion had already begun. Moreover, this inertia (and by this stage huge investment of public resources) effectively ruled out the possibility of major substantive change in the design of the scheme. Opposition groups thus concentrated upon eliciting guarantees from the government, seeking to mitigate the scheme's impacts upon their interests – principally through regulation of the operating regime – and negotiating compensation for costs associated with diminished flows. Two agreements reached during this period would have a direct bearing upon the operation of the Western Diversion.

The Piriaka Compensation Deed During 1964, the Taumarunui Borough Council vigorously petitioned Tom Shand and the NZED. Their claims centred upon the costs that the Borough would potentially incur due to low flows in the upper Whanganui (viz. the loss of generation at the Council's Piriaka hydro-scheme, the impact upon Taumarunui's water supply and sewage disposal, and further loss of amenity). Negotiations ensued between the parties in both Wellington and Taumarunui, and a series of well attended (<600) public meetings were held. Eventually, with little to bargain with, the community was forced to accept the government's terms.⁵⁴ Under the settlement the Crown entered into a number of commitments, the agreement guaranteed a minimum flow at Piriaka to satisfy generation needs,⁵⁵ and, if at any

⁵² The New Zealand Scenery Preservation Society was formed in 1959, and was to work closely with the Forest and Bird Protection Society in opposing the Manapouri scheme. The scale of opposition was demonstrated when later that year the New Zealand Travel and Holidays Association produced 50,000 copies of a pamphlet entitled "Are We Carving Up New Zealand's Scenery?", which considered the 'systematic destruction' of scenic beauty carried out by the Electricity Department, and predicted a 'national disaster' if the government went ahead with its plans to raise Lakes Manapouri and Te Anau. See: N. Peat, 1994, *Manapouri Saved: New Zealand's First Great Conservation Success Story* Longacre Press, Dunedin, pp. 36-7, and passim.

⁵³ J. Martin, (ed.), 1991, *People, Politics and Power Stations* pp. 224-5.

⁵⁴ F. Stenner (Taumarunui Borough Town Clerk), 1964, Letter on behalf of the Council to Shand outlining in detail the Borough's difficulties with the proposed settlement, August 20. Also, the *Taumarunui Press* devoted considerable space to coverage of this dispute. Cf. 31 July and 21 August 1964.

⁵⁵ New Zealand Electricity Division, 1982, "Submission to the Rangitikei-Whanganui Catchment Board" Wellington, p. 3.

stage flows fell below this base level due to the operation of the Western Diversion, the NZED would compensate the Council on a *per diem* basis.⁵⁶

The Kakahi Temperature Agreement A further undertaking was made by the Minister in 1964 that efforts would be made to mitigate the effects of the diversion upon the trout fishery in the upper Whanganui-Whakapapa area.⁵⁷ A permanent reduction in flow levels would certainly have some unavoidable impacts upon the lotic system. However the most serious threats to the trout populations would arise if during hot dry weather the water temperature rose to levels which could stress and potentially kill fish. Subsequently, in 1965 the NZED and the Department of Internal affairs entered into an agreement: A continuous minimum flow of 0.6 cumecs would be maintained directly below the Whakapapa intake, and special releases of water would occur during dry periods to prevent the water temperature rising above 23°C at Kakahi.⁵⁸

10.3.(ii) Physical Description

The Western Diversion must be considered in its functional context within the Tongariro Power Development (see Figure 10.2). As noted at the beginning of this chapter, the Western Diversion is an integral part of a vast water collection system – an elaborate network of intake structures, tunnels, dams, lakes, aqueducts and canals which divert water from a catchment of 2600km² northwards into Lake Taupo and the Waikato River.⁵⁹ Also integrated within this system are two power stations (Rangipo and Tokaanu) which utilise some of the considerable head between the upper levels of the diversions and Lake Taupo. The intention here is to provide an overview of the scheme. A closer examination of the *operation* of the Western Diversion follows.

Stage 1: The Western Diversion Constructed between 1964 and 1971. Stream bed intakes on six headwater streams (Whakapapa, Okupata, Taurewa, Tawhitikuri, Mangatepopo and the Upper Whanganui) divert water northwards through 16.1 km of tunnels, two purpose built reservoirs – Te Whaiiau and Otamangakau (created by earth-fill dams) – and 8.9 km of canals (Te Whaiiau, Otamangakau and Wairehu) before flowing into Lake Rotoaira. Prior to the commissioning of Stage 2 in 1974, the water exited through the natural lake outlet, down the Poutu Stream, Tongariro River and on into Lake Taupo. The Western Diversion provides for a mean flow of 20 m³/s, with a maximum interception of 41.6 m³/s.⁶⁰ Also of note, a series of automatically flushing screens which prevent fish life from the Whanganui catchment (in particular eels and lampreys) from entering into Lake Rotoaira and the Lake Taupo Catchment through the diversions.⁶¹

⁵⁶ During these negotiations Tom Shand was adamant that the Government would only provide compensation for measurable “concrete damage”, “payment for intangibles [ie. loss of aesthetic value] was a different matter”. He also stated, somewhat high-handedly, that: “the river belonged to the people of New Zealand and he had no right to make any payment to a section of the people who happened to live on the Banks of that river”. *Taumarunui Press* July 30, 1964.

⁵⁷ New Zealand Electricity Division, 1982, “Submission to the Rangitikei-Whanganui Catchment Board” Wellington, p. 3.

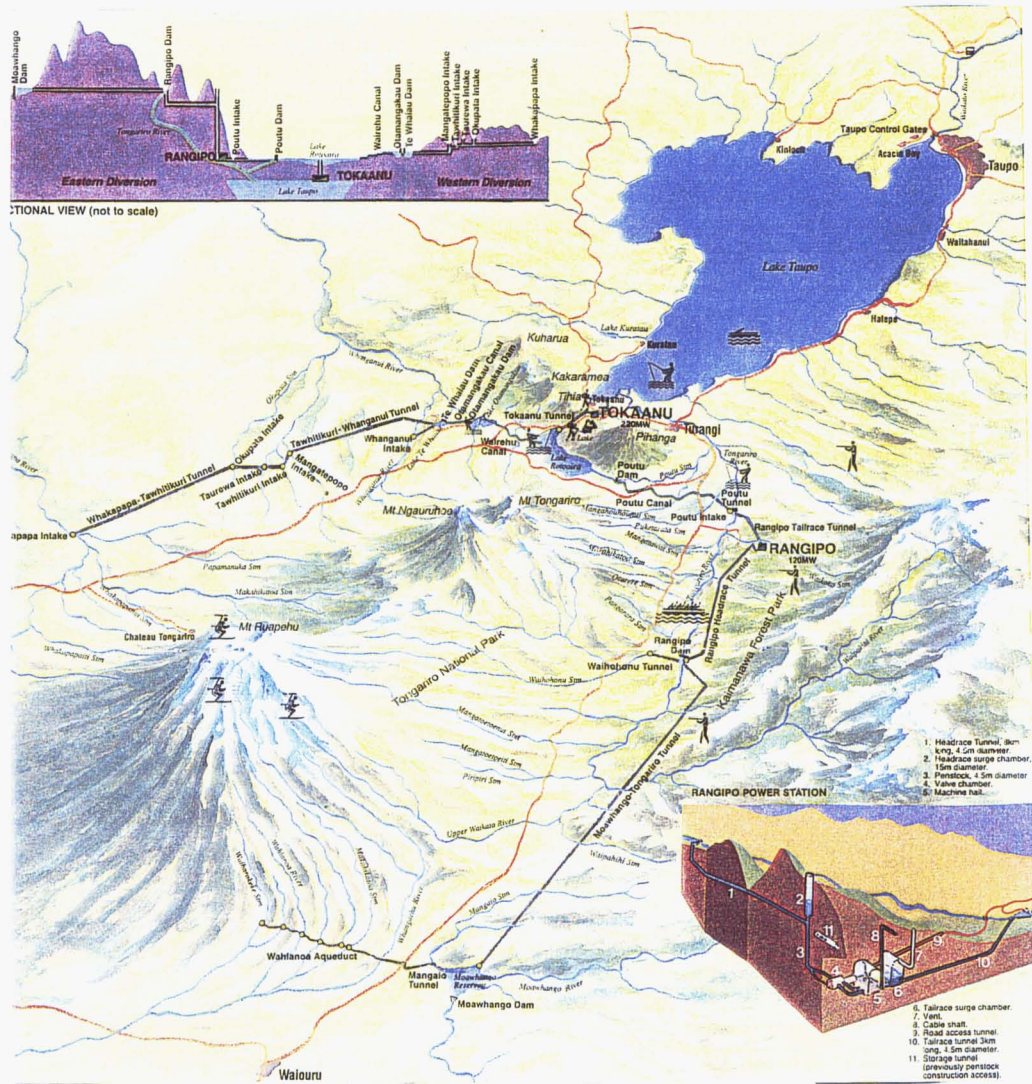
⁵⁸ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 8.

⁵⁹ “This extra water amounts to an increased inflow of some 25 percent on a mean flow basis”. New Zealand Electricity Division, 1982, “Submission to the Rangitikei-Whanganui Catchment Board” Wellington, p. 5.

⁶⁰ *Ibid.*, p. 2. Also: J. Martin, (ed.), 1991, *People, Politics and Power Stations* pp. 222.

⁶¹ Leonard Malcolm (Manager Tokaanu Hydro Area, Electricity Corporation of New Zealand), 1988, Electricity Corporation evidence, Catchment Board hearing, p. 5.

Figure 10.2. The Tongariro Power Scheme



Stage 2: Tokaanu Constructed between January 1968 and July 1973. This stage incorporated a number of elements constructed simultaneously. A concrete gravity dam 13.1 m high and 150 m long regulates the outflows from lake Rotoaira. A large streambed intake at Beggs Pool on the Tongariro River diverts water through a 2.8 km long tunnel and along the 5.6 km Poutu canal into Lake Rotoaira. From Lake Rotoaira a 6 km tunnel transports water northwards beneath the slopes of Mt Tihia to a surge chamber from where penstocks plunge down the hillside to the Tokaanu power station. The station utilises the 200 m of head between Rotoaira and Tokaanu, and has capacity of just over 200 MW. From the powerhouse the water flows into Lake Taupo.⁶² Lake Rotoaira itself has a very limited storage capacity; without inflows it has roughly enough water to run the Tokaanu station at full capacity for only 24 hours.

Stage 3: Moawhango (Eastern Diversion) Constructed between 1969 and 1979. Counterpoised with the Western Diversion, Stage 3 involved the abstraction and diversion of water from catchments to the east of the volcanic spine northwards into the Tongariro River. The Wahianoa aqueduct runs across the south-eastern slopes of Ruapehu intercepting tributaries of the Whangaehu River but not the Whangaehu itself which is highly acidic due to inflows from the mountain's crater lake. From the aqueduct water flows through the 1280 m long Mangaio tunnel into the Mangaio Stream and ultimately the Moawhango reservoir. The reservoir was created by the impoundment of the Moawhango River (a major tributary of the Rangitikei River) by a giant 325 m long and 68 m high gravity-arch dam. From the reservoir the diverted water is conveyed via a 20.1 km long tunnel to the Tongariro River at a position just upstream of the Rangipo dam (see Stage 4).

Stage 4: Rangipo Constructed between 1974 and 1983. The Rangipo concrete-gravity dam is a control and intake structure on the Tongariro River. In addition to the supplementary flows from the Moawhango diversion, the Tongariro's volume is also augmented by water from the Waihothonu catchment between the lower slopes of Ruapehu and Ngauruhoe (by means of a 1000 m diversion tunnel). The central feature of Stage 4 is the Rangipo power station which is a run of the river station with an installed capacity of 120 MW. The Rangipo station is remarkable in that it is completely underground – the powerhouse cavern (55 m long, 18 m wide and 36 m high) is accessed via a 680 m long tunnel – and is normally operated remotely from the project's central control room at Tokaanu. From the Rangipo intake the water flows via a series of tunnels into the Tongariro River at a point just above the Poutu intake (see Stage 2). It is also interesting to note that the Rangipo project was the first, and only, stage of the TPD to be subject to an environmental impact report.⁶³

Finally, in addition to the functional components outlined above, the scheme involved the construction of a sizeable network of supporting infrastructure such as; roads, transmission lines, works depots and housing. The most significant development being the complete transformation of the small, principally Maori, settlement of Turangi, which as the project's

⁶²I. Johnstone (Hydro Resources Manager, Electricity Corporation of New Zealand), 1993, "Resource Users and the RMA: Some Practical Aspects of Being a Resource User in a Green World" Unpublished paper, Hamilton, p. 15; J. Martin, (ed.), 1991, *People, Politics and Power Stations* pp. 222.

⁶³J. Martin, (ed.), 1991, *People, Politics and Power Stations* pp. 232.

headquarters burgeoned from a population of 500 prior to 1964 into a town of 6,000 residents by 1971.⁶⁴

10.3.(iii) *The Operation of the Western Diversion*

In functional terms the Western Diversion is simply a conduit for the inter-basin transfer of water. The mechanics of its daily operation are relatively uncomplicated. Yet it was the operational details of the diversion, the specificities of day to day management, which formed the manipulable core of the WRMF dispute. Beyond the ultimate question of the validity of the existence of the diversions, the conflict derived from, and focused upon, the operation of these structures, and any solution (other than complete cessation and removal) would necessarily involve changes to the management regime. Analysis of the effects of the diversion (beyond the impacts of construction *per se*) demands a preliminary account detailing its operation. As I am concerned here with the origins of conflict and with establishing an empirical foundation for analysis, this account will cover the period *prior to* the establishment of the 1983 minimum flow regime. The details of later operating regimes will emerge over the course of the chronologically ordered narrative in Chapter Twelve.

Certainly the *raison d'être* of the TPD, like any other power scheme, was to generate as much power as possible given the available resource. When considering the operation of the scheme there were, on the one hand, questions about the availability of the resource, and on the other hand, questions about the mechanics of efficient utilisation. In practice these issues were intertwined, and nowhere were they more clearly embodied than in design.

The foremost consideration in the design and operation of the diversion system is the physical availability of the water resource. This was of course a function of rainfall and other catchment characteristics and hence not easily manipulated. The system was thus designed, and subsequently operated, within that physical context. What *is* revealing here is that for the scheme's designers the assumption was that *all* flows would be available for diversion (with the exception of extreme events such as floods). All of the intakes and tunnels were subsequently designed to take up to twice the long term mean annual flow (see Table 10.1), with excess flows (from minor freshes to major floods) passing down the natural stream bed channels.⁶⁵ In addition to the issue of natural river flows (and setting aside the option of structural modification), the design specifications *established basic limitations* upon the operation of the diversion.

⁶⁴ *Ibid.*, pp. 225. The process by which the government appropriated tribal land for this project had been the source of considerable grievances with Ngati Tuwharetoa, and was the subject of a recent Waitangi Tribunal report. Waitangi Tribunal, 1995, *Turangi Township Report 1995* (Wai 84), Brookers, Wellington, Ch. 2.

⁶⁵ New Zealand Electricity Division, 1982, "Submission to the Rangitikei-Whanganui Catchment Board" Wellington, p. 12.

Table 10.1. Western Diversions: design constraints upon flow management⁶⁶

Intake	Intercepted flow	Features and management options
Whakapapa	A. Estimated long-term mean annual flow 14.5 m ³ /s B. Design Capacity 29.1 m ³ /s	Major intake Compensation flows required Compensation flows can be released by opening one or both of the scour gates. Gates can be operated remotely from Tokaanu control room Residual flows are measured by a recorder 914 m downstream from the intake. Data is transmitted to Tokaanu where it is displayed <u>Intake tunnel can be closed remotely from Tokaanu</u>
Okupata	A. 0.5 m ³ /s B. 1.0 m ³ /s	No requirement to pass compensation flows No measurement of flows below intake or of intercepted flows Not possible to pass compensation flows without modification of structures
Taurewa	A. 0.3 m ³ /s B. 0.6 m ³ /s	No requirement to pass compensation flows No measurement of flows below intake or of intercepted flows Not possible to pass compensation flows without modification of structures
Tawhitikuri	A. 0.2 m ³ /s B. 0.4 m ³ /s	No requirement to pass compensation flows No measurement of flows below intake or of intercepted flows Not possible to pass compensation flows without modification of structures
Mangatepopo	A. 2.0 m ³ /s B. 4.0 m ³ /s	No requirement to pass compensation flows No measurement of flows below intake or of intercepted flows Not possible to pass compensation flows without modification of structures
Whanganui	A. 1.6 m ³ /s B. Up to 8.5 m ³ /s	Intake gate leads into Te Whaiu culvert Gate can be controlled locally and remotely Diverted flows are measured in culvert and transmitted to Tokaanu, yet residual flows are not. Could potentially pass compensation flows

For the purposes of establishing and modifying minimum flow regimes a key issue was how much control could be exerted over the operation of the structures? In essence, how much control was there over the level of abstraction, or conversely, what capacity existed for the release of residual flows down the natural stream channels? In Table 10.1 I set out the capabilities of each diversion intake. These structures functioned simply by diverting all of the stream-flows within their respective capacities, with excess flows passing over the tops of the weirs. In this way they coped automatically with the natural fluctuation in water levels without mechanical adjustment. The Whakapapa intake was also the only intake where, by utilising scour gates to alter the discharge downstream, a degree of flow management was possible.⁶⁷ The alternative options for control were either to shut down an intake⁶⁸ or to make expensive changes to the structures themselves.

In addition to design capability, the ability to manage flows also required a concomitant ability to monitor river levels. Measurement of flows occurred at a limited number of points in the Western Diversion system, and the data was subsequently transmitted to the Tokaanu control

⁶⁶ Table based upon evidence presented by: Leonard Malcolm (Manager Tokaanu Hydro Area, Electricity Corporation of New Zealand), 1988, Electricity Corporation evidence, Catchment Board hearing, pp. 12-25.

⁶⁷ The scour gates were designed to discharge water for the purposes of flushing out the chambers that prevent gravel from passing through the intakes into the diversion tunnels.

⁶⁸ This could be done by remote control at the larger intakes, but elsewhere must be carried out on site. New Zealand Electricity Division, 1982, "Submission to the Rangitikei-Whanganui Catchment Board" Wellington, p. 12.

room. Water flowing into and through the diversion was measured at only two locations: The Whanganui was the only diversion flow metered individually, and that was done at the Te Whaiiau culvert which channelled the Whanganui waters into Lake Te Whaiiau; flows from the remaining intakes were measured in aggregate at the Te Whaiiau canal.⁶⁹ Information about individual *downstream* flows was only recorded at one location – 914 m downstream from the Whakapapa intake (which is consistent with the Whakapapa's function in maintaining a residual flow and with the policy of drawing off all flows at the other intakes). Finally, the flow recording station at Piriaka was also monitored, but the data generated provided only a very rough indication of stream-flows in the upper Whanganui catchment.

On the basis of purposively rational criteria, the Western Diversion was a robust system which performed a clear function efficiently. However, the very simplicity of design that made it robust also served to constrain the measure of precision that could be exercised in its operation. Such difficulties were compounded by the limited distribution of flow measurement sites. The established operating policy (prior to 1983) was driven by a straightforward rule – “simply to take as much water as the diversion can intercept” – subject to modest constraints.⁷⁰

To conclude, the history of the operation of the diversion was symptomatic of the same dynamic which shaped the project from the outset. Powerful economic imperatives underpinned a singular drive to maximise power output. Although that dynamic was subsequently tempered by countervailing environmental and socio-economic initiatives, there were few substantive constraints (other than natural flow levels and design factors) upon the operation of the Western Diversion prior to 1983.

10.4. The Environmental Impacts on the Whanganui River and Catchment System

The task of assessing the environmental impacts of the Western Diversion upon the Whanganui catchment is a difficult one. This was fiercely contested terrain throughout the WRMF dispute – a broad and complex discourse encompassing disputed epistemologies, methodologies,

⁶⁹ Leonard Malcolm, 1988, Electricity Corporation evidence, Catchment Board hearing, p. 18.

⁷⁰ New Zealand Electricity Division, 1982, “Submission to the Rangitikei-Whanganui Catchment Board” Wellington, p. 12. Those requirements were:

The Piriaka Deed As noted in 10.3.(i), this agreement guaranteed a minimum flow at Piriaka to satisfy generation needs there. If flows in the Whanganui River (measured at the Piriaka flow station) fell below 14.2 cumecs compensation would be payable to the Taumarunui Borough Council, and if below 9.9 cumecs then a greater level of compensation would accrue. The agreement provides for an absolute minimum flow of 7.1 cumecs.⁷⁰

Kakahi Temperature Agreement Also noted in 10.3.(i). In order to extend a degree of protection to the fishery a minimum flow of 0.6 m³/s to be maintained in the Whakapapa stream channel. In order to avoid adverse stress to lotic biota ad hoc releases required when water temperature at Kakahi nears 23°C.

Lake Taupo – maximum control level So as to comply with the Lake Taupo Compensation Claims Act 1947 the diversion of foreign water into Lake Taupo had to cease when the level of Lake Taupo was nearing, or at, its maximum control level. This was to avoid flooding in the Waikato catchment.

Other storage levels In addition to the level of Lake Taupo, the diversion was also constrained by the capacities of all the storage lakes and reservoirs through which the diverted water flows.

Emergency procedures When extreme events occurred, such as a volcanic eruption or lahar, in the Whakapapa River or any other of the diverted streams, then the diversion would desist.

Flood During large floods in the Whakapapa River diversion of water would be temporarily discontinued to prevent large quantities of silt from entering the tunnels.

Given typical operating conditions it was normally only the first two conditions that effect the day to day running of the diversion. Leonard Malcolm, 1988, Electricity Corporation evidence, Catchment Board hearing, p. 26-9. Also: New Zealand Electricity Division, 1982, “Submission to the Rangitikei-Whanganui Catchment Board” Wellington, p. 13.

measurements, and ultimately interpretations. This discursive process was undoubtedly constrained and shaped by the adversarial nature of the proceedings. Also, there were other important obstacles, not the least of which was the almost total lack of baseline data (especially quantitative) on the pre-diversion state of the catchment. Yet on close examination it is possible to discern considerable substantive agreement – at least on core physical changes – and this shall be the ground covered here. Some of the more disputed issues will be dealt with in later discussion. Finally, the purpose here is to provide an overview of the basic biophysical impacts. The 1990 Planning Tribunal decision provides a useful and extensive summary of various impacts. It is, however, a direct product (and indeed constituent part) of the discourse which is under critique and must therefore be treated with some circumspection. The approach taken here has been to structure the review on the basis of recent river management literature. Information such as is contained within the Planning Tribunal's decision is thus interpreted within a more integrated systems framework.

At the beginning of section 10.2 I noted that the river and catchment function as a biophysical system. The assumption being that although the boundaries of this system are open, it does possess a high level of functional coherence and can therefore be considered, analytically, as a *totality*. It is also a relational concept. Its defining characteristic is the fundamental connectedness that exists within its borders – “complex interactions between the physical, chemical and biological components that occur in space and time”.⁷¹ This has important implications here where the focus is upon disturbances, for it suggests that major perturbations have potentially far reaching consequences, and they do. The problem is that when assessing the impacts of anthropogenic disturbances the focus is upon causal connection, but river systems with their multiplicity of dynamic interactions can make detection or proof of such linkages very difficult.

The most immediate and fundamental *physical* effects of the diversion were hydrological – changes to flow patterns. At the catchment scale, hydrological patterns and in-stream hydrological conditions are important, if not primary, determinants of ecosystem structure and function.⁷² In broad terms, the abstraction of water resulted in significantly reduced flows below the diversion structures (as a proportion of natural flows, disturbances were greater directly below the intake structures, as inflows from tributaries downstream buffered the hydrological effects). This was in itself a critical indicator, yet it is also possible (despite considerable natural annual variation in flows) to identify more specific changes to flow patterns. These were expressed in the hydrographic record for the Whakapapa, and are termed *artefacts* of the regime. They are listed below:

Reduced mean flow Pre-diversion flows were in the order of 15.1 cumecs at the Whakapapa recorder and 89.1 cumecs at Te Maire. Following the diversion the mean flows dropped dramatically. The reduction was attenuated slightly with the implementation of the 1983 minimum flow regime,⁷³ but, at 2.3 cumecs at Whakapapa and 68.5 cumecs at Te Maire, they remained a fraction of the natural mean flow.⁷⁴

⁷¹ P. Calow, and G. Petts, (eds), 1994, *The Rivers Handbook* p. 1.

⁷² J. Gore, “Hydrological Change” In *Ibid.*, p. 33.

⁷³ The 1983 regime involved (in addition to the previous restrictions outlined in 10.2.(ii)), a minimum flow at Te Maire of 22 cumecs between 1 January and 14 February, and at Easter, and 16 cumecs at all other times.

⁷⁴ John Garrett (then Resources Technical Manager for the Central Districts Catchment Boards), 1989, Evidence in rebuttal, Planning Tribunal hearing, p. 2.

Reduced minimum flows For the Whakapapa the natural minimum flow was 5.8 cumecs, and the natural average annual low flow 8.5 cumecs. This dropped to the guaranteed minimum of 0.6 cumecs after the diversion.

Absence of seasonal variation in base flow Because the diversion was designed to automatically draw off up to twice the mean annual flow there was less seasonal variation directly below the control structures.

Negative surges Instances where flows dropped below the stipulated absolute minimum (0.6 cumecs) had been recorded. Such events had deleterious effects upon the stream biota, at least in the downstream vicinity.

Ad hoc releases

Reduced peak flows These were more significant in medium flow events (fashes and minor floods). It was thought that this reduced the river's ability to transport sediment.

Reduced number of peak flows The floods on the river tended to be fewer and larger (that is as a proportion of base-flow).

Truncated recessions Increasing flows were abstracted up until capacity of diversion, then the flows in the river rose very rapidly, and similarly decreased quite suddenly. It is thought that this also constrained the rivers' ability to transport sediment.

High natural flow High natural flows after a period of abstraction could be deleterious to the stream biota.⁷⁵

Together these artefacts represented a substantial transformation in the flow regime for the Whakapapa, causing significant modification to the in-stream physical conditions. It is highly probable that these effects also occurred in the other affected tributaries – indeed, without the provision of residual flows, streams such as the Mangatepopo and the upper Whanganui were completely de-watered in the reaches below the intakes. Such physical changes can be considered in a number of functional contexts.

The first involves the role of stream-flow in defining the environmental domain within which biological communities develop and survive. A series of changes to in-stream biotic controls resulted from the altered hydrological regime: (i) A reduction in wetted area – notably, in those reaches immediately below the intakes;⁷⁶ (ii) Altered hydraulic conditions – the diversion resulted in a decrease in hydraulic heterogeneity, reduced mean velocity and depth, principally in the upper reaches.⁷⁷ It is generally recognised that the “pattern of velocity variation in space and time has a strong influence on biota, especially benthic invertebrates and fluvial algae”,⁷⁸ with reduced variation leading to less biotic diversity;⁷⁹ (iii) Modified thermal regime – although it was argued in the Planning Tribunal that the rate of discharge is but one of many factors which would affect water temperature, the reduced flows undoubtedly conduce to some increase in mean annual, and mean summer, temperatures. As noted previously, the management regime was tailored to avoid or mitigate extreme rises which would threaten trout *survival*, but there remained considerable disagreement about the necessary temperature preferences of trout, and the optimal conditions for growth (there were also concerns for the native fishery);⁸⁰ (iv) Diminished water quality – earlier in this chapter I touched upon the problems of increased sediment loads and the degraded biological quality of the river water, especially below

⁷⁵ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 107-8.

⁷⁶ Wayne Donovan (Consulting biologist), 1988, Evidence presented on behalf of Electricorp, Catchment Board hearing, p. 6. One of the effects of the decrease in wetter area was the increased spalling of the papa ledges once they were exposed to air, thus contributing to the level of grey silts in the river. John Hawley (Manager, Division of Land and Soil Sciences, DSIR), 1989, Evidence on behalf of the Minister of Conservation, Planning Tribunal hearing.

⁷⁷ *Ibid.*

⁷⁸ P. Calow, and G. Petts, (eds), 1994, *The Rivers Handbook* p. 10.

⁷⁹ J. Gore, “Hydrological Change” In *Ibid.*, p. 48.

⁸⁰ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 110-11.

Taumarunui. Historically, both problems derived from changing land use patterns within the greater catchment area (viz. forest clearance, agricultural practices and increased population etc.). However, it was argued by a range of parties that reduced headwater flows served to exacerbate these phenomena. The Planning Tribunal subsequently found that the diversion had little effect upon the biological quality of the water in the more affected lower reaches – meaning that the release of water for the purposes of dilution would not mitigate this problem. It did conclude, however, that increased flows would facilitate some improvement in the clarity of the river water, but was unable to provide quantitative predictions.⁸¹

The issue of sediment loads crosses over into the second functional context – the role of flow in determining the *morphology* of the river channel and riparian areas throughout the river corridor.⁸² The focus here is upon changes to the river's sediment regime (transport, erosion and deposition). In the upper section a major impact was the reduction in bed-load discharge due to the diversion of particulate matter through the tunnels (up to 30 percent of sand sizes and fines), the main consequence being a lesser proportion of sand in the river channel downstream.⁸³ An additional impact (principally in the Whakapapa) of the reduced flows was the decreased capacity of the river to transport fine silts, thus resulting in a thin and undesirable mantle of this material lining the streambed and banks.⁸⁴ Furthermore, an increase in suspended grey silts was thought to derive from accelerated erosion of the papa ledges exposed as a result of lower water levels.⁸⁵ Lastly, a number of parties to the conflict (most notably the Whanganui City Council) held that the diversion had led to increased siltation in the Whanganui Harbour and estuary, however based on the evidence presented the Planning Tribunal rejected any causal connection between the two.⁸⁶

The effects upon the biota were complex and, in many instances, ambiguous. As with the physical changes outlined above, the impacts upon the stream ecology were more easily observed, and of greater note, closer to the point sources of disturbance. There was almost universal acceptance that there had been significant adverse effects in these reaches – most obviously through the reduction in stream habitat resulting in a general decrease in biomass.⁸⁷ Within the remaining stream channel there was a “resetting” of the community structure,⁸⁸ for example, below the Whakapapa intake the river had “assumed the characteristics of a headwater area”.⁸⁹ Many effects represented a transformation from a pristine stream environment to something different. Periphyton accumulation occurred due to reduced current velocity, and as a consequence there was a change from a rich fauna dependent upon a low periphyton biomass to a

⁸¹ *Ibid.*, p. 109.

⁸² G. Petts and I. Maddock, “Flow Allocation for In-River Needs” In P. Calow, and G. Petts, (eds), 1994, *The Rivers Handbook* p. 289.

⁸³ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 111.

⁸⁴ R. Heerdegen, and J. Rosier, 1991, “Knowledge and the Environmental Planning Process” *Sites* No.22, Autumn, pp. 13.

⁸⁵ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 112.

⁸⁶ *Ibid.*, p. 113.

⁸⁷ Wayne Donovan (Consulting biologist), 1988, Electricorp evidence, Catchment Board hearing, p. 6.

⁸⁸ J. Gore, “Hydrological Change” In P. Calow, and G. Petts, (eds), 1994, *The Rivers Handbook* p. 35.

⁸⁹ J. Richardson, and L. Teirney, 1982, *The Whakapapa River: A Study of the Trout Fishery Under a Modified Flow Regime* Fisheries Environmental Report No.22, Ministry of Agriculture and Fisheries, Wellington.

community adapted to life amongst periphyton. The most affected rivers were the Whakapapa and the Mangatepopo.⁹⁰ Another important effect was that in addition to a decline in the density of organisms, the diversity of species had fallen dramatically (in some locations by up to 70 percent), with reductions in species richness recorded as far downstream as Taumarunui.⁹¹

In recent decades, consideration of in-river needs has typically been directed towards maintaining habitat for target species – usually salmonid.⁹² Conforming with this emphasis, the WRMF dispute involved the rigorous examination of the effects of reduced flows upon the trout fishery. A host of expert witnesses gave evidence and an array of methodologies and conclusions were proffered. Yet according to the Planning Tribunal, the results of the debate were inconclusive, and the practical implications subsequently uncertain. The Tribunal held that there had been a very substantial decline in trout numbers in the Whakapapa between the intake and Oio seven kilometres downstream, but that further downstream towards Kakahi (reputedly the best fishery) there had been no significant decline.⁹³ With hindsight this conclusion seems a very conservative analysis of the scientific evidence presented, and furthermore, was contrary to the body of anecdotal evidence presented by local fishers who had observed a marked decline in the standard of the trout fishery extending beyond Kakahi.⁹⁴

The impact of the diversion upon the native fishery was also of concern. Over recent decades (indeed, since the turn of the century) a drastic reduction in the populations of indigenous species (eg. eels, smelt, lampreys, native trout, koura, etc) had been documented throughout the Whanganui River system. The Planning Tribunal determined that:

On the balance of probabilities that condition is attributable in part to the reduced river flow resulting from the Western Diversion.. ; that it is also attributable to other changes in the catchment, including deforestation; and that the relative significance of the various causes cannot be reliably assessed on the present evidence.⁹⁵

Once more a definitive analysis was hindered by the lack of baseline data.

Finally, it was also highly probable that the diversion had had a deleterious effect upon the blue duck populations – principally through the loss of habitat in the upper Whanganui and the Mangatepopo rivers, and with some reduction in the Whakapapa. Again there were, in all likelihood, multiple causes for the recent decline in numbers (such as exotic forestry in the upper Whanganui) which made it difficult to identify a causal connection with flow levels.⁹⁶

The purpose of this section has been to review the core biophysical disturbances that resulted from the operation of the Western Diversion. As I pointed out at the beginning of this section, an intricate and enigmatic web of causal connection existed within the catchment, and moreover, even in a totally natural state the Whanganui River system remained in perpetual flux, and experienced constant disturbance. As a consequence, the task of assessing effects was

⁹⁰ Department of Conservation, 1988, "Whanganui River Minimum Flows Submission to the Rangitikei-Whanganui Catchment Board" Whanganui, Part 6, p. 40.

⁹¹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 116.

⁹² G. Petts and I. Maddock, "Flow Allocation for In-River Needs" In P. Calow, and G. Petts, (eds), 1994, *The Rivers Handbook* p. 289.

⁹³ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 119-20.

⁹⁴ Such as James Gosman and Manu Lala who presented evidence on behalf of the Whanganui River Flows Coalition in the Planning Tribunal hearing.

⁹⁵ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 121.

⁹⁶ *Ibid.*, pp. 113.

formidable. Such information constraints are commonplace in environmental decision-making and it is necessary here, as it was in the dispute itself, to establish some working assumptions, listing the probable correlations between flow levels and various biophysical indicators. Across the system, two general trends were apparent: First, increased levels of abstraction led to greater magnitudes of ecological disturbance (note that this correlation is by no means a linear one); Secondly, the biophysical effects of particular flow regimes were more readily identified and more profound in the upper catchment, the impacts upon the lower reaches being less certain.

Within this chapter much has been made of the idea of the river and catchment as a system. This suggests a qualitative element. Viewed as a totality – as a functionally coherent entity – there arises the issue of the system's *integrity*. On this basis disturbances (whether they be anthropogenic or otherwise) insofar as they threaten the integrity of the interconnections within the system, necessarily degrade that system. Most importantly, there are thresholds where the system's resilience – its inherent capacity to absorb change and recover from it – will be threatened. In this particular case these threshold effects were in all likelihood of greatest significance at the sub-catchment scale, namely upon *particular* communities (such as lotic communities in the *headwaters*) or upon threatened species (such as the blue duck). The issue of reversible and irreversible effects was also significant here, as certain components of the system would not recover even if flows were increased or restored, whereas other deleterious effects would only prevail so long as the hydrological regime was affected.

10.5. Conclusion

In this chapter I have: provided a basic description of the Whanganui River system; outlined the genesis of the TPD and some important historical matters that were relevant to the later conflict; provided a physical description of the TPD and its design constraints; discussed the principles by which it was operated for the generation of electricity; and finally, I examined the general biophysical effects of scheme upon the river system. The chapter thus acts as a broadly factual reference point for later discussion. In the next chapter I will add a second layer to this, focusing upon the substantive arguments surrounding the diversion of headwater flows.

The Political Economy of Electricity Generation and the Arguments Surrounding Diversion

11. Introduction

In this chapter I review the arguments surrounding the diversion of water. Discussion is pivoted around the substantive divide at the heart of the conflict. The chapter is thus split into two sections, with the first section dealing with both the historical political economy of electricity generation, and the specific arguments for the diversion of flows that arose out of that context. The second section deals with the countervailing arguments for the retention of either an increased portion or all of the natural flows within the Whanganui headwaters. This information is crucial to both the presentation of the historical narrative of conflict in the following chapter, and to the later analysis of the dispute in terms of the analytical framework in Chapter Thirteen.

11.1. The Political Economy of Electricity Generation and the Value of the Western Diversion

In this section I undertake two tasks: First I describe various structural features that ultimately affect the electricity generation sector's capacity to mobilise and influence in pursuit of its interests, and which in fact serve to define those interests. Discussion therefore begins by examining the *functional* significance of the electricity generation system within the national economy (systemic source of influence), and the changing *forms* of institutional control and attendant modes of operation/production, of this sector; The second element concerns the arguments for the diversion of water through the Western Diversion. I examine the functioning of the national generation network as a whole, before focusing upon the role and value of the Western Diversion in particular. The idea is that by dealing with the functional and institutional contexts as well as with the arguments for the operation of the Diversion, I therefore embrace two important and interconnected elements of the political economy of electricity generation. And in so doing I incorporate both the political and value elements of the analytical framework (although that theoretical connection is not explicitly investigated until Chapter Thirteen).

As I noted in the previous chapter, the arguments of the parties involved in this conflict were diverse and complex, and most importantly, widely and vigorously contested. Unfortunately, there is no recourse to a commonly agreed standard. Hence to undertake a review

of the arguments as I do here, it is necessary for pragmatic reasons to generalise and make 'common sense' judgements. In many instances, I take the Planning Tribunal decision (the core decision-making process within the dispute) as, if not an authoritative, then at least as an informed and well reasoned guide. Also, although the approach here is to deal firstly with the issue of electricity generation before moving on to review the values and arguments of those who opposed abstraction *per se* or the level of abstraction, I do make reference to dissenting arguments (in the form of rejoinders, rebuttals, etc.) when I am discussing a particular issue, rather than at a later stage. Moreover, due to the complexity of the arguments presented in the conflict, I cannot describe these contests in any detail.

11.1.(i) *The Strategic Function of Electricity Generation*

Electricity is a basic commodity that is of fundamental importance in the functioning of any modern industrialised society. To note this is of course to state the obvious, nonetheless, it is a useful starting point. In essence it is a statement about value – whether it be the overall instrumental value of electricity at the scale of society as a whole (underpinning social development and economic growth), or at the level of particular uses (specific use values) – electricity is clearly very important. I do not intend to get caught up in examining why this is so (see footnote¹), so instead, I begin with a series of statistics which detail the historical development of the electricity system in the post-war period through to the 1980s.

The tendency throughout this period was one of constant large-scale development. At its material core, this has involved the almost exponential expansion of the generating system through a massive civil-works program (of which the Tongariro Power Development was an integral part). Figure 11.1 documents a twenty-fold increase in generation capacity between 1942 when the total generating capacity was 340.8 MW, and 1990 when it was 7181.9 MW. The mean percentage annual increase in capacity over this period was a phenomenal 6.7 percent,² contributing an average of 4 percent per annum to New Zealand's gross fixed capital formation.³ Predictably, as the capacity of the generation system increased so too did the output – hence Figure 11.2 describes a similar trend.

1 The strategic function of the electricity generation network has developed through the historical conjunction of both demand and supply-side factors. Demand for electricity is ultimately founded upon its instrumental use-value, that is, its capacity – mediated, and to a degree determined by, the technologies available (in this case electrical) – to satisfy a range of human needs and wants. The supply-side has also been contingent upon the state of technological development (eg. of generating plant and transmission system), in addition to other cost factors (eg. capital investment, resource/fuel availability and other production costs), and the institutional exigencies (eg. required rate of return) and biases (eg. for hydro-power) of both electricity production and alternative energy forms. These elements are intertwined and do in fact mutually create each other. Mediating, and indeed manifesting, this process is the market mechanism (but also other allocatory and regulatory mechanisms/interventions).

2 For full data sets see Appendix H.

3 Keith S. Turner (Corporate Development Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 5.

Figure 11.1: National Generating System – Total Installed Capacity (MW)

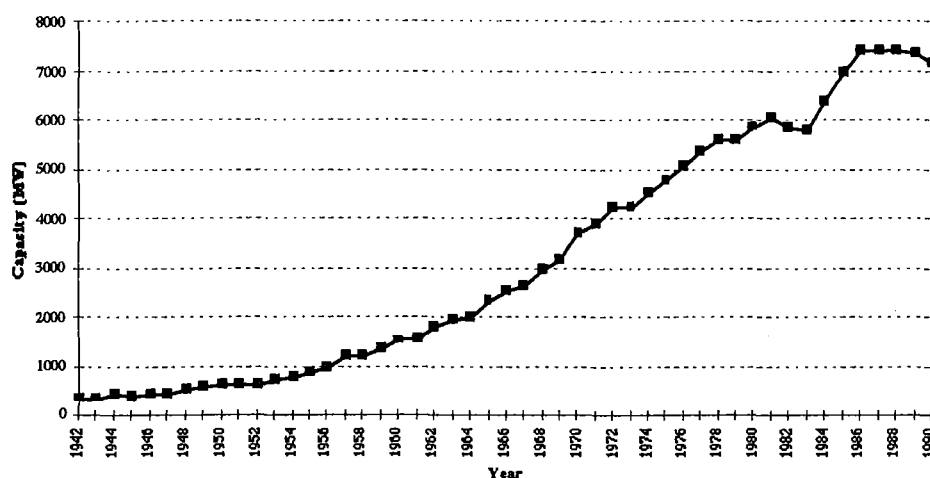
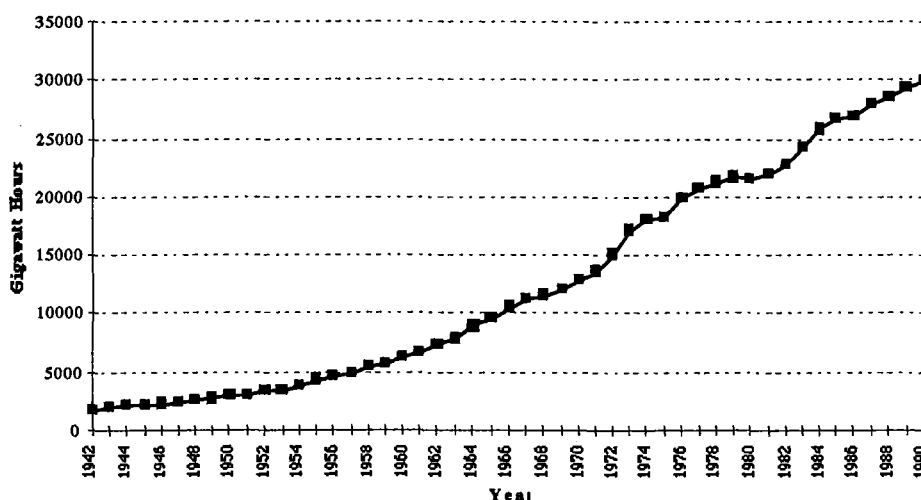


Figure 11.2: National Generating System – GWh Generated



This expansion in supply was accompanied by a steady decline in the real retail price of electricity, from 18.03 cents per unit⁴ in 1942 to 8.85 cents in 1990.⁵ The number of electricity consumers rose concurrently by a factor of more than three, from 455,000 in 1942 to 1,547,600 in 1990. When this statistic is compared with the substantially higher rate of increase in GWh generated it points to at least two associated trends; firstly, a notable increase in per capita use of electricity, and secondly, the dramatic growth of commercial and industrial usage of electricity.⁶

4 Unit = 1 kilowatt hour (KWh)

5 Real retail prices calculated on the following basis: Nominal retail prices of electricity are derived from revenue from sales divided by units sold. Using the Consumer Prices Index of base December 1989 = 1000, nominal prices are converted to real prices in March 1990 terms. J. Martin, (ed.), 1991, *People, Politics and Power Stations: Electric Power Generation in New Zealand 1880-1990* Bridget Williams Books and ECNZ, Wellington, p. 294.

6 This includes the emergence of some very large-scale electricity users. For example the Tiwai Point Aluminium Smelter consumes more than 3900 GWh of electricity annually – more than the entire annual output of the generating network prior to 1954 (on the basis of a 15,000 KWh required to produce a tonne of aluminium and an annual output of 260,000 tonnes). N. Peat, 1994, *Manapouri Saved: New Zealand's First Great Conservation Success Story* Longacre Press, Dunedin, p. 20.

By 1989 industry used 41.45 percent of electricity consumed, commercial use was 19.66 percent and domestic 35.62 percent.

On a comparative scale, New Zealand was one of the most energy intensive economies in the world (fifth highest energy use per unit of GDP in the OECD in 1988⁷). Further, over recent decades the tendency in developed countries had been for energy intensity to decrease. However, contrary to this trend New Zealand increased its energy dependence (which in aggregate rose 32 percent between 1970 and 1988). It is within that broader context of increasing energy intensity and aggregate use that electricity production and consumption rose.⁸ Indeed the rate of growth of the electricity sector surpassed the underlying trend with electricity displacing the traditional reliance upon solid fuels and imported oils as sources of energy. The following table illustrates this pattern:

Table 11.1: Consumer Energy Use by Fuel Type 1954 – 1991 (Petajoules)⁹

Year	Solid	Oil	Gas	Electricity	Total
1954	55	59	2	16	132
1964	48	90	2	30	170
1974	41	151	7	58	257
1984	40	140	48	83	311
1991	69	160	41	102	372

Another point of interest when considering the strategic value of the electricity system is that independent of the wider instrumental value of electricity to society (in functional terms), the electricity industry was itself a very significant locus of capital accumulation.¹⁰ For example, in 1988 in the midst of the WRMF dispute the electricity industry had an annual turnover of \$3 billion – equivalent to 3.2 percent of GDP.¹¹

In summary, the historical record reveals electricity to have been of increasingly fundamental importance in the functioning of the New Zealand economy and society. This strategic function was framed in terms of the ‘public’, ‘strategic’ or ‘national’ interest within the dispute. My attention now turns to the issues of ownership and control, and to the attendant incentive structures which prevailed during the period of the dispute.

11.1.(ii) Ownership and Control of Electricity Generation

As noted at the beginning of this section, the purpose of the present inquiry is to identify the structural features which affected the electricity generation sector’s capacity to mobilise and influence in pursuit of its interests, and which also served to define those substantive interests. Thus far I have argued that historically the production of electricity has been a fundamental infra-

7 J. Sheerin, 1993, *Measuring Up* Department of Statistics, Wellington, Table 2.1, p. 42.

8 I do not want to convey the idea that this was some ineluctable process. It was, in fact, the result of the policies of successive New Zealand governments who treated energy as a “free good”. A. Kellow, 1996, *Transforming Power: The Politics of Electricity Planning* Cambridge University Press, Cambridge, p. 81.

9 Based on: Department of Statistics, 1998, *New Zealand Official Yearbook 1998* GPI Publications, Wellington, Table 20.2, p. 432.

10 In 1984 the State’s electricity assets were valued on a current cost basis at \$12 billion. Treasury, 1984, “State-Owned Enterprises Policy Committee Paper” Wellington, p. 275.

11 Keith S. Turner (Corporate Development Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 5. Also: In the same year energy as a whole, including transport fuels, made a net contribution of 5.2 percent to GDP.

structural role which had become increasingly significant in the decades preceding the dispute. This constant function (production) must be seen as a potential source of influence. However this observation has only general explanatory value without a concomitant analysis of the institutional configuration (viz. ownership, organisational form and structural location) and associated modes of production within the electricity generation sector.

Historically, the production and transmission of electricity had been almost wholly the preserve of a state monopoly generator in one form or another.¹² During the primary timeframe covered here (1977–92) the wider configuration of the state sector changed radically due to a systematic program of governmental reform. The energy sector was transformed in this process, and although responsibility for the generation and transfer of electricity remained in the hands of a state owned monopoly, the institutional structures and exigencies were greatly altered.

Since the 1950s two tendencies prevailed in the management of energy resources; first, an increase in the integration of functions at the central government level, and secondly, a steady increase in the role of the state in the provision of energy. These trends peaked in the half-decade following the assimilation of the Electricity Department into the Ministry of Energy in 1978 – the period when the initial minimum flow levels were being set for the Whanganui River (1978–1983).¹³ The Ministry was established in order to provide a coordinated approach to energy development at a time of considerable uncertainty in world energy markets (following the 1973 oil crisis).¹⁴ The emphasis was upon ensuring supply through integrated energy planning and by increasing the level of local (NZ) control through the development of indigenous energy resources and tighter regulation of use. This integration and expansion of functions led to an even greater consolidation of power and control at the centre. This is confirmed by Duncan and Bollard who write: “the Electricity Division was decentralised in an operational sense but highly centralised in management, partly because of the influence of the Minister, control agencies and the union”.¹⁵ A corporatist political framework prevailed in which the Ministry of Energy, Ministry of Works and Development, and the Department of Trade and Industry wielded considerable institutional power in the pursuit of their developmental mandates.

By late 1984 that ascendancy was under threat. The Fourth Labour Government’s accession to office had signalled the beginning of an expansive structural adjustment program across all sectors of state activity and influence. The principles and historical mechanics of that neo-liberal program are well documented,¹⁶ but in essence, driven by a cadre of powerful and

12 At the time of the Planning Tribunal hearing, Electricorp produced 96 percent of all New Zealand’s electricity, with the remainder generated by small-scale local-body owned power stations. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 135.

13 Report of the Ministry of Energy for the year ended 31 March 1985, *Appendices to the Journals of the House of Representatives* D.6 A, p. 9.

14 *Ibid.*, p. 11.

15 I. Duncan, and I. Bollard, 1992, *Corporatization and Privatization: Lessons From New Zealand* Oxford University Press, Auckland, p. 90.

16 The literature is extensive. A number of volumes provide scholarly insight into this period Cf: A. Bollard, and R. Buckle, (eds), 1987, *Economic Liberalisation in New Zealand* Allen and Unwin, Wellington; J. Boston, and M. Holland, (eds), 1987, *The Fourth Labour Government: Radical Politics in New Zealand* (first edition) Oxford University Press, Auckland; B. Easton, (ed), 1989, *The Making of Rogernomics* Auckland University Press, Auckland; M. Holland, and J. Boston, (eds), 1990, *The Fourth Labour Government* (second edition) Oxford University Press, Auckland; J. Boston, J. Martin, J. Pallot, and P. Walsh, (eds), 1991, *Reshaping the State: New Zealand’s Bureaucratic Revolution* Oxford University Press, Auckland; B. Roper, and C. Rudd, (eds), 1993, *State and Economy in New Zealand* Oxford University Press,

highly motivated politicians and technocrats from both the public and private sectors, the agenda pursued:

- a. a commitment to the market in preference to the state as a means for allocating resources;
- b. emphasis on individual and corporate freedom as a key to economic progress and social well-being; and
- c. a reduced role for the state in the economy.¹⁷

The leviathan development agencies subsequently came under a sustained and penetrating critique from reformers. A number of strands of criticism emerged. The principal challenges were founded upon efficiency arguments – in short, the existing institutional framework was seen to provide a poor return on public investment. One crude illustration (but relevant here) was the case of the Electricity Division which despite its monopoly position had recorded a 4 percent return on assets before tax and interest in comparison to a contemporaneous 11 percent overall return in the private sector. Naturally, given the scale of such investments, these arguments carried substantial weight. The reasons proffered by Treasury for such institutional failure were; “a lack of clear objectives, an operating environment marked by special assistance, lack of competition, and an absence of incentives for managerial performance”.¹⁸ For the electricity sector in particular, the existing structures “over many years, had led to an oversupply of electrical generating capacity, non-commercial pricing, a high degree of cross-subsidising in favour of residential customers, and a lack of focus upon cost-containment and efficiency”.¹⁹

Running parallel to the efficiency arguments were long-standing environmental grievances that cut across the whole spectrum of government management.²⁰ In the energy sector those concerns were principally associated with the adverse effects of the construction and operation of major projects (such as the TPD). In addition to the concentration and excessive discretionary exercise of power by the development agencies, many problems were perceived to have arisen out of the multiple and potentially conflicting mandates which lay with specific organisations.²¹ As noted above, the rationale for the consolidation of functions was to facilitate integrated decision-making – yet as a result, significant trade-offs between developmental and

Auckland; A. Sharp, (ed), 1994, *Leap into the Dark: The Changing Role of the State in New Zealand since 1984* Auckland University Press, Auckland; J. Kelsey, 1995, *The New Zealand Experiment: A World Model for Structural Adjustment?* Auckland University Press, Auckland.

17 R. Mascarenhas, 1991, “State-Owned Enterprises” in: J. Boston, J. Martin, J. Pallot, and P. Walsh, (eds), 1991, *Reshaping the State: New Zealand’s Bureaucratic Revolution* Oxford University Press, Auckland. Jane Kelsey, in her analysis of the reforms, lists the following key principles: market and trade liberalisation, the contraction of the role of the State, fiscal restraint, ‘firm’ monetary policy, and de-regulation of the labour market.

18 Treasury, 1984, “State-Owned Enterprises Policy Committee Paper” Wellington, p. 279. Cited in R. Mascarenhas, 1991, “State-Owned Enterprises” p. 30.

19 B. Spicer, et al., 1991, *The Power to Manage: Restructuring the New Zealand Electricity Department as a State Owned Enterprise – The Electricorp Experience* Oxford University Press, Auckland, pp. 17-18. This over-capacity of generating plant was estimated in 1989 to have had a lost opportunity cost to the nation of approximately \$3 billion. Roger Blakeley (Secretary for the Environment), 1989, Evidence on behalf of the Ministry for the Environment, Planning Tribunal hearing, p. 19.

20 It should be emphasised that these environmental imperatives, although bolstering the argument for institutional change, did not arise out of the neo-liberal agenda. Rather, it was a case of expediency – congruent means (institutional reform) but different ends.

21 With regard to electricity development the most glaring example of multiple objectives was the Ministry of Works and Development. This agency was not only involved in project design and construction (as the national construction agency) but also functioned as a national land and water resources policy and regulatory agency – through its Town and Country Planning and Water and Soil Divisions respectively. P. Ali Memon, 1993, *Keeping New Zealand Green: Recent Environmental Reforms* Otago University Press, Dunedin, p. 35.

environmental objectives transpired in an opaque and publicly unaccountable way. Moreover, the substantive outcomes were heavily weighted in favour of development.

The solution, as summarised by Kelsey:

[W]as to decouple political and economic control. Treasury's formula involved separating commercial state operations from non-commercial. Where possible, the former should be converted into state-owned trading enterprises (SOEs) functioning as private sector businesses in conditions of competitive neutrality. Permanent departmental heads would be replaced by entrepreneurial boards of directors and autonomous chief executives with incentives to perform. Profit should be the SOEs overriding goal. Spending on non-commercial activities, such as subsidised utility and social services, could be made transparent through explicit contracts with SOEs. ... When no compelling reason for state ownership existed SOEs could be privatised, offering "one way the fiscal deficit can be financed in the short term".²² Any remaining regulatory and policy functions should be allocated to separate agencies or to streamlined, residual government ministries with managerial autonomy, performance targets and labour practices along private sector lines.²³

This decoupling involved transition through three phases; (i) *commercialisation* of all government activities, and *corporatisation* of trading activities via changes to the administrative environment, (ii) *deregulation* through the removal of statutory monopoly controls and establishment of appropriate market frameworks, and (iii) *privatisation* through the contracting out to of government services to private providers, and the sale of public assets.

In light of this broader context of reform, the transformation of the electricity sector was inevitable. With the passing of the *State-Owned Enterprises Act 1986* the institutional framework of generation was completely transformed. From 1 April 1987, the state's electricity generation and transmission activities became the responsibility of the Electricity Corporation of New Zealand Limited (hereafter 'Electricorp' or 'the Corporation').

Driving Electricorp was the paramount objective established by S. 4(1) – *to operate as a successful business* (my emphasis). Towards this purpose they were to be:

- (a) As profitable and efficient as comparable businesses that are not owned by the Crown; and
- (b) A good employer; and
- (c) An organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates and by endeavouring to encourage these when able to do so (this was known as the 'good corporate citizen' clause).

It is not possible to overstate the significance of this dynamic for electricity production. Where previously the *raison d'être* had been the strategic guarantee of supply it was now to run a power company as profitably as possible. Accordingly, Electricorp was incorporated as a limited liability company.²⁴ The framework for ownership and control, if not identical to, was homologous with the private enterprise model. The substantive differences where they existed lay in *who* owned the Corporation and, to a lesser extent, in certain mechanisms for setting objectives and ensuring accountability. Shares and equity bonds in the Corporation were to be held on behalf of the Crown by the Minister of Finance and the responsible Minister (initially in the Minister of Energy but later transferred to the Minister of State Owned Enterprises).²⁵ Shareholder control over the Corporation was to be facilitated through the Crown's exclusive

²² Treasury, 1984, *Economic Management* Government Printer, Wellington, pp. 293-4.

²³ J. Kelsey, (1995), *The New Zealand Experiment* pp. 115-6.

²⁴ Under S. 13 of the *Companies Act 1955*

²⁵ Under S.10 of the *SOE Act 1986*. Shares and equity bonds were to be split equally between the two Ministers. Also, shares and equities could not be sold or transferred other than to a Minister of the Crown (S. 11).

right to appoint directors, to determine an appropriate dividend payment,²⁶ and to approve the annual statement of corporate intent. Transparency and accountability were to be realised through the provision to the share-holding ministers and parliament of the statement of corporate intent,²⁷ annual report, audited financial accounts, and also through ad hoc information solicited by the ministers.²⁸ In practice these controls were limited, as the approach was determinedly hands-off. Strategic oversight of the organisation and its operations was the responsibility of a board of directors. Assets were now owned by the SOEs themselves (ie. generation and transmission system and associated land and infrastructure, and significant in the context of this study; existing rights and obligations), purchased at a price determined through negotiation (\$6.3 billion in 1987²⁹). These factors (putatively) enabled the “SOEs to function with clarity of purpose, potentially eliminated the practice of cross subsidisation of services, and served to insulate management from political control”.³⁰ An additional point here is that under this new framework social and environmental objectives could be effected through the government *contracting* the SOE to provide designated services at a negotiated market price.

From its formation (that is for the duration of this study) the Corporation, headed by its Chief Executive Dr Roderick Deane³¹, was organised on the basis of four operational divisions – Production, National Grid³², PowerDesignBuild and Marketing. The divisions (already considerably ‘leaner’ than the constituent arms of the NZED) were to function as business units with strategic accountability (monitoring and control) firmly focused upon financial performance.³³

As noted above, fused with the corporatisation program (changes in the configuration of production) was the contemporaneous process of market deregulation (modification of the framework for commodity exchange). In order to extract economic efficiencies in electricity production and supply, and indeed in the energy sector *in toto*, it was considered necessary to expose the industry to market imperatives. Spicer et al., in their sympathetic study of Electricorp’s genesis, identify three broad areas of enhanced market allocation; input markets, competition in generation, and output markets. These categories are adopted here.

(i) *Input Markets*. The loosening of regulatory controls and the extrication of the Corporation from entrenched statutory relationships freed up competition for input/cost factors within the

26 *Ibid.*, S.13.

27 This annual statement specifies the Corporation’s business plan for three years ahead, and should include: objectives, scope of activities, ratio of shareholder’s funds to total assets, accounting policies, performance targets, likely Crown revenue (dividends, and taxation on assets and revenue), the type of information to be submitted to the Ministers, compensation sought by the board from the Crown, and the value of the Crown’s investment. *SOE Act 1986* S. 14.

28 *Ibid.*, S’s. 15-18.

29 Electricity Corporation of New Zealand, June 30, 1988, “Statement of Corporate Intent” Wellington. Geoffrey Bertram argues elsewhere that this sum was surprisingly low given the levels of ‘resource rents’ that could be extracted from monopoly control of the vast-hydro network, and the extant barriers to entry for competing generators. 1988, “Rents in the New Zealand Energy Sector” In, Royal Commission on Social Policy, 1988, *Towards a Fair and Just Society Vol. IV* Government Printer, Wellington, p. 323.

30 J. Kelsey, (1995), *The New Zealand Experiment* pp. 118.

31 Formerly Deputy Governor of the Reserve Bank of New Zealand and State Services Commissioner.

32 Later TransPower – a wholly owned subsidiary of Electricorp solely concerned with the management of the national transmission system.

33 I. Duncan, and I. Bolland, 1992, *Corporatization and Privatization* p. 89.

production process. This was most evident in markets for capital (debt)³⁴, fuel (supply)³⁵, labour, managers, maintenance services and capital works³⁶.

- (ii) *Competition in Generation.* Two institutional measures are significant here: First, the removal of Electricorp's statutory monopoly position allowed competing generators to sell electricity either directly to the Corporation itself or to other customers; And secondly, the guarantee of access to the national transmission system for alternative generators, on a non-discriminatory basis.³⁷ Given the very limited generation capacity outside Electricorp's network the substantive threat was mainly that of entry by new generators. Because of this the Corporation pursued a dual strategy, seeking to minimise the costs of generation,³⁸ and to raise barriers to entry through pricing. But, as evidenced in Bertram's analysis of rent taking in the electricity sector, Electricorp had plenty of room to dissuade competition whilst simultaneously reaping high returns, at least in the short-term.³⁹ In this deregulated framework it is necessary to recognise Electricorp's dominance within the market in generation, and its consequent ability to control that framework and to exploit its position, thereby extracting extraordinary profits.⁴⁰
- (iii) *Output markets.* Electricorp's performance in the wholesale electricity market – its primary output market – was grounded in its dominance in the generation market as discussed. However, an additional constraint upon Electricorp's performance as a wholesaler of electricity was competition from substitute energy forms. The Corporation estimated its share of the non-transport energy market at around 45 percent, with approximately 70 percent of the final use market potentially contestable by alternative fuels (although considering the historical tendency detailed in Table 11.1, with electricity constantly increasing its share of the consumer energy market, the threat of substitutes should probably be seen as potentially constraining further expansion rather than as undermining electricity's existing market share).⁴¹ Also of consequence here, was that many large electricity consumers (again take for example Tiwai Point) were competing in global commodity markets and were *potentially* mobile. As with the threat of entry, the solution focussed upon lowering the average price of electricity in real terms, but it also involved vigorous

34 On its establishment Electricorp had to purchase its assets from the Crown. The initial sum of \$3 billion owed to the Crown was to be converted to private debt within three years. This was achieved by accessing the international debt market and by the effective creation of a New Zealand corporate debt market (given the unprecedented sums involved).

35 The Corporation was not bound by existing supply agreements with other Crown entities (e.g for coal and gas).

36 B. Spicer, et al., 1991, *The Power to Manage* pp. 67-76.

37 I. Duncan, and I. Bollard, 1992, *Corporatization and Privatization* p. 84.

38 The drive to optimise efficiencies and minimise the costs of existing operations penetrated all aspects of the organisation's activities. Staff numbers were halved from 6000 to just over 3000 between 1987 and 1992. Another significant measure was the rationalisation of assets to reduce surplus capacity (e.g. mothballing marginal high cost stations such as the oil-fired Marsden A plant). I. Duncan, and I. Bollard, 1992, *Corporatization and Privatization* p. 47; B. Spicer, et al., 1991, *The Power to Manage* p. 78.

39 G. Bertram, 1988, "Rents in the New Zealand Energy Sector" In, Royal Commission on Social Policy, 1988, *Towards a Fair and Just Society Vol. IV* Government Printer, Wellington, pp. 293-325. "Rents" notes Bertram "arise first from the fact that not all economic resources are of equal productive capacity, and second from the fact that many real-world market structures are characterised by 'some degree of monopoly' (market power). Either or both of these two elements may be encountered in any specific situation" p. 296.

40 That is subject to the constraining power of the *Commerce Act* that was to regulate anti-competitive behaviour. I. Duncan, and I. Bollard, 1992, *Corporatization and Privatization* p. 4

41 B. Spicer, et al., 1991, *The Power to Manage* p. 86.

marketing of electricity as a 'clean' energy form, and participation in ancillary markets such as appliance wholesaling and retail markets as part of Electricorp's wider strategy to increase market share. Finally, Electricorp also marketed the services of its contracting arms – PowerDesignBuild and Electricorp Marketing Electricity Contracting – both nationally and internationally.⁴²

To summarise, the overriding imperative driving Electricorp was that conspicuously set out in S. 4 (1) of the *SOE Act*: "to operate as a successful business". The production and transmission of electricity was organised on this basis – a monolithic corporate enterprise seeking to maximise its shareholder's long-term interests (defined solely in financial terms). The Corporation's form, interests, and *modus operandi* were inevitably structured and over time transformed by the framework in which it operated – the market. Market disciplines provided incentives to reduce costs (narrowly defined), to innovate and pursue various market strategies. Also, the government's privatisation agenda further motivated the Corporation's senior managers to rationalise and to seek to extract optimal efficiencies from the business – and in so doing ensure the maximum market price (net present value) for the asset in the event of a sale.⁴³ But the converse also applied, with the market itself being effectively structured and transformed by Electricorp's participation. The removal of statutory monopoly controls did not change the fundamental reality that Electricorp retained a natural monopoly position in electricity generation and transmission. Its extant organisational resources – a vast integrated network with associated economies, substantial excess capacity, and sunk costs⁴⁴ – bestowed upon the Corporation an incomparable competitive advantage, enabling it to dominate the production and exchange of electricity.

Both the Electricity Division and Electricorp were powerful actors. Their capacity to influence derived principally (although not exclusively) from their respective performance of the strategic function of production. Two elements together account for this systemic source of influence: First the function itself, which has been identified as increasingly fundamental in the operation of technologically advanced capitalist society – this is the underlying level of social use value; And second, there is the issue of monopoly control, with both organisations dominating the production function. In addition to this systemic function each organisation was characterised by a specific set of structural features (both common and disparate) such as interests/incentive structures, organisational forms and institutional settings. The most important point being that there was a shift from a *state* monopoly generator driven by the exigencies of guaranteed supply, to a state owned but largely autonomous business monopoly that was almost wholly motivated by profitable accumulation. Once again, these are matters that will be explicitly dealt within Chapter Thirteen.

11.1.(iii) *The Management of the Generation Network*

Two points need to be made prior to the following discussion. The first is that to avoid having to provide technical data for the duration of the case study I use 1989 as a base year, that is unless I

⁴² *Ibid.*, pp. 86-92.

⁴³ Rod Deane openly expressed his support for the eventual privatisation of the Corporation. Cf. 1989, "Reflections on Privatisation" Paper presented to IBM Utilities Industry Executive Conference, Bangkok, September 20-22.

⁴⁴ I. Duncan, and I. Bolland, 1992, *Corporatization and Privatization* p. 47

state otherwise. This was the year in which the Planning Tribunal hearing was held, and in procedural terms was the crux period of the conflict. The other point is that because I have not yet described the historical process of conflict I will not, on the whole, refer to any one flow regime, and will instead treat the effects of the diversion in tendential terms (ie.. increased minimum flow requirements lead to reduced abstraction leads to decreased electricity generation).

In 1989 Electricorp's generation system had a total operating capacity of 6815 MW.⁴⁵ This capacity existed in the form of 29 hydro-electric power stations, two geo-thermal stations, and seven thermal stations. All of the geo-thermal and thermal (hereafter 'thermal') stations were located in the North Island, with South Island generation being solely hydro-electric. Moreover, of the 4287 MW of hydro-electric capacity available, approximately two-thirds (2702 MW, and soon to be more with the commissioning of Clyde) were in the South Island, and of the remaining third, 86 percent lay in the Tongariro-Waikato system. Lastly, the North and South Islands were interconnected by a high-voltage direct-current (HVDC) link across Cook Strait and that enabled the system to be operated as a fully integrated national power system.

Table 11.2. Production and Consumption of Electricity⁴⁶

		1986	1987	1988	1989	1990
Production						
Fossil fuels	GWh	6189	5192	5424	5052	6374
Geothermal	GWh	1109	1174	1183	1237	1805
Total thermal	GWh	7298	6366	6607	6289	8179
Hydro	GWh	18659	20582	20891	21900	20823
Total Generated	GWh	25957	26948	27498	28189	29002
Purchased	GWh	22	21	20	20	14
Total available	GWh	25979	26969	27518	28209	29016
Consumption						
Sales of electricity	GWh	24241	25187	25772	26436	27374
Transmission losses and internal use	GWh	1738	1782	1746	1773	1642
Total consumed	GWh	25979	26969	27518	28209	29016

The management of this integrated generation network was undertaken on the basis of a series of key variables and a multitude of lesser, more contingent, factors. On the basis of Electricorp's evidence Judge Sheppard listed (but not in this order)⁴⁷:

- Forecasts of energy demand.
- The availability of generating plant (both hydro and thermal), with allowances for planned outages for maintenance, and forced outages as a result of breakdowns.
- The cost of thermal generation.
- Water inflows into catchments.
- Storage capabilities of both water and fuel.
- Environmental requirements – such as minimum and compensation flows

In the following discussion I will, in turn, explain each of these parameters/criteria in the context of the national framework. The difficulty here is that they are all mutually interdependent, so one mechanism does not necessarily precede another.

⁴⁵ I have not included the 432MW Clyde hydro-electric station that was still under construction during this period.

⁴⁶ Based on: Electricity Corporation of New Zealand, 31 March 1990, *Annual Report* p. 31.

⁴⁷ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 135-8. Following; M. Turner (Production Control Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 9.

Demand for electricity will vary significantly in response to many factors. Four broad tendencies are conspicuous here. First, there are marked diurnal fluctuations and spikes of peak demand. Such short term variations can on the whole be planned for, however, they do require flexibility in the system. In particular the ability to bring certain stations on-line quickly, and to vary marginal output almost instantaneously thereby helping to maintain system frequency. The second tendency is the seasonal variation, with higher demand in the colder months. As will become more apparent later, this is a crucial factor in managing inflows, storage and fuel use. Thirdly, there is the problem of predicting medium to long term changes in demand – this is the big factor in planning future construction (or, for that matter, methods for avoiding the construction of plant, such as efficiency measures and energy conservation). As is apparent from both Figure 11.2 earlier in the chapter, and Table 11.2. above, there has been a historical tendency for demand to steadily increase over time. Electricorp argued at the Planning Tribunal hearing that this trend would continue in the near future – a prediction that at least in the following half decade or so has been proven correct. One must, however, remain cognisant of the ability of Electricorp to manufacture this load growth, through pricing structures, marketing strategies, etc.⁴⁸ And fourth, there is the crucial factor that two-thirds of electricity demand was located in the North Island. A fact that underpinned the plans for the doubling of the HVDC link to 1250 MW in 1991.

The availability of generation plant is self explanatory. The only point that needs to be made about this, is that it also underpins the necessity for, and size of, surplus capacity in the system. Electricorp argued that there was enough surplus capacity in the system – given the 432 MW station at Clyde coming on-line, the cable expansion, and efficiency gains throughout the system. But it also argued forcefully, and it was accepted by the Tribunal, that there was *no hydro-electric surplus*. The reasons for this will become evident as discussion progresses.⁴⁹

The cost of thermal generation was one of the most critical factors driving the system. As has been discussed previously, and is evident from the statistics in Table 11.2, hydro-production has been the historically dominant source of electricity in the New Zealand system. By the time of the WRMF conflict two-thirds of installed capacity was in hydro plant, and most significantly, these stations contributed over three quarters of annual production. The reasons for this are complex (eg. natural resource endowments, technical factors, institutional bias and inertia, and foreign exchange limitations) but of greatest importance were the principles of valuation that drove decision-making about both current operations and future investment. Put simply, the choice of energy supply was not made on the basis of capital investment, such costs were to be treated as 'sunk' (because it was their revenue generating ability that determined the valuation of the Corporation's assets). The conventions of economic analysis meant that decisions were instead based on the current costs of production. This rule instantly privileged hydro over thermal production, for while hydro schemes had very high capital costs, they were in general very cheap to operate (say for example, 0.5c/kWh rather than 5c/kWh), while the converse applied to fossil-fuel plant, which had low capital costs and high running costs (principally fuel

⁴⁸ M. Heffernan (National Wholesale Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 14.

⁴⁹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 148.

costs, and were also expensive to maintain).⁵⁰ Electricorp's approach, like that of the NZED before it, was to rank stations on the basis of operating cost. Priority being given to the cheaper hydro-stations (themselves ranked on the basis of their differential costs at any one time) which thus provided the *base-load* capacity. These were followed in turn by the geo-thermal and fossil fuel burning stations, with the thermal stations providing 'firming' capacity at the margin. This bias was further exacerbated by Electricorp's pricing methodology:

The cost of energy from the power station which provides the last MW in meeting the demand is said to be the marginal cost whether one is referring to the value of water used or the incremental cost of fuel. This cost of energy at the margin also provides the basis for the dynamic price signalled to the supply authorities.⁵¹

With the exception of periods of abnormally low demand, or of high inflows and storage levels, the last increment of generation would in all likelihood come from thermal generation. As a result, the value of water in the system was generally pegged to the value of the fuel burned in the marginal station, for example, coal at Huntly.

The most important consequence of this overall approach was the ability of Electricorp to extract sizeable economic rents from its assets. Bertram explains the concept of a rent:

A rent exists, then, whenever the consumer of a commodity is obliged to pay more than the cost of supplying that commodity from the cheapest existing source. In free markets, the price is expected to settle at roughly the cost of production from the *marginal*, not the *cheapest*, source of supply. Therefore in any free-market situation there will be rents gained by the owners of relatively low cost ('intra-marginal') supplies.⁵²

Bertram also provides some indication of the orders of magnitude involved, estimating that of the \$670 million operating surplus for 1983/4 (of the NZED rather than Electricorp, but the principle was the same), \$655 million was in the form of Salter rents (see previous footnote). He goes on in his subsequent analysis to show how a corporatised monopoly such as Electricorp charged with the primary goal of profit maximisation, would be able to raise prices towards the LRMC of entry, thereby extracting even greater rents.⁵³

⁵⁰ Aynsley Kellow has highlighted the perverse outcomes that arise as a result of focussing solely upon cost of production in energy planning, and by having little regard to risk assessment. He observes that when the vast cost of construction is taken into account in the case of the Clyde Dam (approx. \$1500 million in 1991 dollars, or \$130 million a year at a discount rate of 10percent) then: "In 1991 dollars the cost of energy from the Clyde Dam – finally commissioned in 1992 – was 11.3 c/KWh, compared with around 5c for combined cycle gas stations [highly efficient dual jet combustion-conventional steam turbines]". A. Kellow, 1996, *Transforming Power: The Politics of Electricity Planning* Cambridge University Press, Cambridge, pp. 80-1.

⁵¹ M. Turner (Production Control Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 18. The major exception to this rule is the long term contract which existed with Comalco for the supply of electricity to the Bluff aluminium smelter. Comalco were able to purchase electricity at "a price less than half of the wholesale price to other bulk-electricity buyers". G. Bertram, 1988, "Rents in the New Zealand Energy Sector" p. 305.

⁵² Bertram lists a number of types of economic rents which are pertinent to Electricorp's situation. I summarise here:

- *Differential rents* Including control of especially productive or well-located natural resources ('Ricardian' rents), and as a participant in a capital-intensive industry where the costs of entry are high ('Salter' rents).
- *Monopoly rents* In Electricorp's case these accrued not because of regulation but because of the Corporation's deployment of market power.

Ibid., pp. 293-5. The deregulated wholesale electricity market established in 1988 was expected to result in a market price just below the long-run marginal cost of entry to new participants, which at the time was the cost of building and operating a combined-cycle thermal station.

⁵³ *Ibid.*, p. 302. In fact in 1989 Electricorp was pricing *above* the LRMC – its justification for this was that the sale and purchase agreement with the Crown forced the Corporation to adopt this pricing strategy. John Fernyhough (Chairman of the Electricorp Board) in board meeting 15 March 1990. Recorded by Roger Blakely (Secretary for the Environment), Internal Memorandum NPR 6/4/1, Ministry for the Environment, Wellington.

On this basis, any loss of hydro-electric energy would be directly reflected in increased use of thermal capacity. This rule underpinned the need to optimise the utilisation of hydro-plant throughout the system, which in effect meant the efficient management of water resources – inflows and storage. While the integrated management of inflows and storage involved considerable uncertainty, in 1988-89 the utilisation of inflows was as high as 96 percent in the North Island and 90 percent for the South Island.⁵⁴ One of the reasons why it was so high was that intake structures, such as those of the WD, were designed to take twice the long-term mean annual flows meaning that spillage could be kept to a minimum. Another critical factor in the management of the water resource was that:

[H]igh inflow periods are generally in late spring and summer in the South Island, and mid-winter in the North Island, if the usual pattern of rainfall occurs. While North Island inflows follow the demand pattern, the South Island inflows are out of step with demand and require the management of water storage to help maximise the utilisation of inflows, and minimise the amount of fuel burnt.⁵⁵

However, the storage of water in the system was limited, being equal to only 13 percent of overall energy demand. Most notably here, storage in the North Island amounted to the equivalent of only 4 percent of North Island demand. Also, in order to allow for the *risk* of low inflows and lake levels, the system was managed on a 'dry year' basis – this placed real limits upon the utilisation of water resources, especially in the months preceding the winter demand period.⁵⁶

The last of the main constraints or dynamics which determined the operation of the system were those of environmental obligations and other resource management restrictions. It is into this category that the Whanganui minimum flows fell. The NZED and Electricorp were both bound by a multiplicity of historical agreements, including limited rights to use water resources, minimum flow regimes, restrictions on lake levels (such as the hard won levels established for Lakes Manapouri and Te Anau, but also in the current context, the Lake Taupo levels), requirements to maintain fresh water fisheries, ad hoc releases for recreational users, riparian zones and sediment transfers. These limitations also affected the thermal plant, such as with the temperature limits governing the discharge of cooling waters from the Wairakei, Huntly and Meremere thermal stations into the Waikato River, and controls on air emissions, etc. Such obligations, some voluntary, some statutory, had substantial system-wide effects upon operational decision-making, and certainly placed real constraints upon the utilisation of the highly profitable intra-marginal capacity.⁵⁷

11.1.(iv) *The Value of the Western Diversion to Electricorp*

The value of the WD waters derived not so much from the net volumes abstracted but rather from the high potential energy that they could generate. As I discussed in the previous chapter, the WD flows passed through not one, but nine, hydro-stations. This potential energy amounted to 102 MWh per cumec day, a rating only surpassed in the North Island system by the waters of the Eastern Diversion which passed through the Rangipo station prior to their confluence with the

⁵⁴ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 136.

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ M. Turner (Production Control Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 9, and *passim*.

WD flows.⁵⁸ Because of this, the Whanganui waters contributed a total of 10 percent of the North Island hydro generation, and approximately 3.5 percent of the total electrical energy generated in the national framework.

Another key factor was that in the North Island the potential value of water tended to be highest during the period January to May (this is so as to enable storage in the South Island to reach the optimal levels prior to the winter). This had the effect of making the WD flows especially valuable due to the particular pattern of higher than average inflows (compared to other North Island catchments) into the Whanganui headwaters during this period.⁵⁹ It should be remembered here that this was precisely the period when the Whanganui fishery was experiencing the maximum stress from high water temperatures, and it was also the period of greatest recreational use.

An approximate dollar value can be placed on the diversion flows for working purposes. In the Planning Tribunal the Corporate Development Manager of Electricorp submitted that the WD had the following generation potential in the year 1988/9:

	Energy (GWh)
Tokaanu generation	329
Waikato generation	436
Diversion spill	298
Total	1064

He estimated the value of the 1064 GWh to be \$47.9 m per annum. When the spillage factor is subtracted the figure is 765 GWh of potential production, or an approximate value of \$34.44 m.⁶⁰ What should be emphasised here, however, is that while this sum seemed substantial, any loss of water to the Corporation through an increased minimum flow regime (other than complete cessation) would represent a proportion of this figure.

A number of specific functions performed by the WD flows and the TPD were said to be of *strategic value* – that is, for the guarantee of the quality and quantity of supply. In particular, it was emphasised that the Tokaanu station was, by virtue of discharging *into* Lake Taupo, able to function independently of the Waikato stations (for these would have to generate in unison for no substantive storage exists downstream of Taupo). Because of this flexibility Tokaanu was engineered to vary its production anywhere within its range from zero to 200 MW and to vary its output within a very short lead time – a matter of minutes rather than the hours or days it took other stations. This enabled it to (i) maintain frequency control, (ii) provide spinning reserve – which enabled the system to cope with short term fluctuations in demand, and (iii) to contribute to peak loads. It was argued by Electricorp that because of the minimal storage (24 hours max.) available in Lake Rotoaira (above Tokaanu) any reduction in WD flows would severely constrain

⁵⁸ *Ibid.*, p. 27. Consider that smaller hydro-stations typically rate an average of 15.7 MWh per cumec day. K. Turner (Corporate Development Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 33.

⁵⁹ M. Turner (Production Control Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 23.

⁶⁰ This figure is based upon the 1983 minimum flow regime which represented an average loss of five percent of flows, or 376 cumec days. If as Electricorp asserted, the value of water was \$1.7 million per cumec per year then the pre minimum flow value would have been approximately \$36 million in 1989 dollars. K. Turner (Corporate Development Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, Exhibit 11. See also Exhibit EP 17.

the performance of these critical system functions, and would decrease the efficiency – utilisation – of the Tokaanu station.⁶¹

Having argued successfully that no hydro-electric surplus existed in the system, Electricorp then focused its arguments upon the question of how any loss of hydro-capacity would be replaced. The Corporation argued that any losses would, in the commercial context that it operated, have to be replaced by the next cheapest alternative, which was in its opinion that of thermal generation.⁶² This was a vigorously contested assertion resulting in a wide-ranging debate. I will summarise the opposition's response to Electricorp's arguments later. But essentially, Electricorp submitted firstly that the Cable expansion and the commissioning of Clyde would not deliver a hydro-surplus. They then proceeded to dismiss the possibility of replacing any losses incurred by reduced levels of abstraction in the WD: (i) By forgoing economically attractive load growth (interestingly, the Planning Tribunal, charged with focusing upon the 'public' rather than 'commercial' interest, did not rate this argument highly);⁶³ (ii) And by energy conservation and management measures (ECM) – ie. by using less electricity to get the same or better result. Electricorp argued that it was pursuing efficiency measures in all of its operating systems but that such savings would not result in a surplus of hydro-energy. It also argued that its long-term forecasts took into account energy conservation and management strategies in the wider economy (eg. as a constraint upon potential load growth) but that these were also insufficient to furnish a hydro surplus. Most revealingly, the Corporation argued that under its existing mandate to maximise revenue the benefits of ECM measures would have to outweigh their costs (note that assessment did not include environmental or social costs and benefits), and that at the time of the dispute the costs exceeded the benefits. The Corporation would be unwilling to incur any such costs unless compensated by the government as part of a policy initiative;⁶⁴ (iii) Finally, by replacing the lost generation with alternative sources of power. Once again, they argued that on the basis of current technology and fuel costs, thermal generation would remain cheaper than the most viable alternatives such as co-generation, wind power or solar energy. The Corporation's overall approach was for transparency with regard to the costs and benefits of various generation strategies (once again, the 'costs' were narrowly

⁶¹ Only one other station in the North Island (Maraetai II on the Waikato) was capable of performing these functions. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 138-41.

⁶² It is interesting here that Keith Turner submitted on behalf of Electricorp that the Corporation already had a considerable investment in thermal plant, and that these sunk costs should be taken into account in deciding how any losses in capacity should be replaced (although N. Maxwell, for Electricorp, contradicted this). However, as Bertram argued in his evidence for the Minister of Conservation, such sunk costs are normally regarded as irrelevant in cost-benefit analysis. The crucial issue here was, rather, the potential costs and benefits from utilising plant in the future – precisely the decision rule which drove electricorp's day to day assessment of operating costs. G. Bertram, 1989, Rebuttal evidence on behalf of the Minister of Conservation, Planning Tribunal hearing, p. 7.

⁶³ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 151.

⁶⁴ *Ibid.*, pp. 151-6. For Electricorp such an equation would be confined to: the loss of revenue from reduced sales; the savings in fuel and other marginal costs of generation; the savings from deferred capital expenditure on new generating plant; the cost of the ECM scheme to Electricorp, the marginal cost to Electricorp of running the scheme; and compensation or revenue received by Electricorp for the ECM scheme.

defined). Indeed, the Corporation was averse to any moves on the part of government to provide selective incentives (eg. tax breaks or subsidies) for energy efficiency programs.⁶⁵

Another strand of Electricorp's argument centred upon the effects of reduced flows on the Waikato River. I summarise here: First, they contended that the extra water in the Waikato River was vital for cooling at geothermal and thermal power stations, and consequently, that any loss of water would decrease the outputs of Wairakei, Meremere, and Huntly at the very time when such generation would be in greatest demand; Secondly, it was argued that the Corporation was obligated under the Tongariro Offset Works Agreement to provide for flood control works in the Waikato catchment and to compensate for any losses incurred as a result of the TPD flows. The main effects of this were that this reduced the storage available in Lake Taupo (because lake levels had to be kept lower as a buffer for surges in inflows), which in turn restricted the flexibility in the system, and that the level of Lake Karapiro was able to be kept lower thus smoothing flows in the flood prone lower Waikato; Thirdly, high flows were required immediately downstream of Taupo to dilute the town's sewage discharge, and to enhance the tourism value of the Huka Falls; And fourthly, that the WD water was useful in maintaining the critical conservation values of the Whangamarino wetland – DoC rejected this, however, as a new system of weirs was to protect the area from low flow levels in the Waikato.⁶⁶

The Corporation emphasised that the positive environmental effects of the diversion flows went beyond the impacts on the Waikato. There was *prima facie* merit in their arguments. The hydro-resource was a *renewable* resource, which meant less consumption of fossil fuels.⁶⁷ While the replacement of lost hydro-resources did not necessarily mean a concomitant increase in thermal generation, the Planning Tribunal accepted the argument that in the medium term, and on a least cost basis, there would be.⁶⁸ The fossil fuel issue was a fiercely debated one because it touched upon the emergent and complex issues of greenhouse gas emissions and climate change. The Planning Tribunal accepted the possibility that the replacement of lost hydro output could result in increased emissions, that these may contribute to the potential global problem, and that it would take this into account in its ultimate balancing of the evidence. But it did qualify this by noting that any consequent increase in emissions would be negligible relative to New Zealand's total emissions.⁶⁹ Nevertheless the greenhouse issue was a strong *symbolic* argument for Electricorp. The other main environmental argument proffered by the Corporation was that the development of the Waikato River, and the full utilisation of this investment, saved other rivers from exploitation. However, the proposition that the loss of the WD water would have an "impact on water use in Waikaremoana, in the Waitaki valley and possibly the Manapouri catchment",⁷⁰ seems alarmist given the strict controls that governed those water resources.

⁶⁵ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 151.

⁶⁶ *Ibid.*, 141-5.

⁶⁷ As was argued by Jeanette Fitzsimons (Lecturer, Department of Planning, Auckland University), 1989, Evidence on behalf of Electricorp, Planning Tribunal hearing.

⁶⁸ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 159.

⁶⁹ Indeed, this was the first major planning appeal in New Zealand to touch upon these issues. *Ibid.*, p. 157-60.

⁷⁰ K. Turner (Corporate Development Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, pp. 16-17.

But the main thrust of Electricorp's case was financial. As I noted above, the WD waters had a high potential energy rating and contributed to the profitable intra-marginal component of the system. While any loss of income from this source may have appeared to be small in comparison to the total revenues earned by the organisation, Electricorp asserted that such relativities were irrelevant, and the Planning Tribunal accepted that point.⁷¹ The Corporation couched a number of its arguments in terms of the 'public interest' – "the profitability of the Corporation is in the interests of all New Zealanders"⁷². It submitted that if the costs of electricity generation were to rise due to the loss of diversion flows then this would cause the price of electricity to rise, that any subsequent decline in profitability would result in a decreased dividend to the Crown which would in turn cause taxes to rise, and that decreased profitability would lead to drop in shareholder's equity. Of these three arguments only the last was held to have any merit. In a system where the price of electricity was determined by the marginal costs of supply, costs could clearly not be passed on to consumers in that way – losses of water would instead act to reduce the *rents* that could be extracted. Nor would the dividends paid to the government necessarily decline. The more likely result would have been for the Corporation to retain fewer earnings. It is this effect that could lead to a reduction in shareholders' equity over time.⁷³ The Planning Tribunal did not consider that these values would be significant.⁷⁴ Electricorp was trenchant in its advocacy of the public or national interest argument. Dr Turner also submitted on behalf of the Corporation that GDP would decrease by approximately 0.3 percent if 200 GWh were lost. Another Electricorp witness deposed that restrictions on the Whanganui water would affect the competitiveness of export industries.⁷⁵ Once again the Planning Tribunal was not persuaded by these arguments.⁷⁶

Electricorp's arguments were clearly driven by revenue questions. The financial costs, and the loss of highly profitable intra-marginal capacity, formed the core of its case. Many of its arguments identified effects of water losses that would have less direct, but ultimately real, impacts upon its profitability. Other arguments were presented to fill out its case, and some of these were at best manipulative and at worst vexatious. The most prominent feature of the Electricorp case was its sheer scope and complexity. As I shall discuss in Chapter Twelve this was a deliberate strategy to swamp all its opponents in a mire of technical detail. I have in this section only presented Electricorp's discussion of *its* interests, and much of its case related to questioning and rebutting the arguments of others. It is not possible to deal with all of those arguments in this study and I will, on the whole, restrict myself to an exposition of the *positive*

⁷¹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 161.

⁷² K. Turner (Corporate Development Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 9.

⁷³ G. Bertram, 1989, Rebuttal evidence on behalf of the Minister of Conservation, Planning Tribunal hearing, pp. 4-6.

⁷⁴ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 161. Nevertheless, with privatisation on the minds of senior Electricorp officials and politicians there would undoubtedly have been a strong desire to maximise the potential sale price.

⁷⁵ M. Heffernan (National Wholesale Manager, Electricity Corporation of New Zealand), 1989, Electricity Corporation evidence, Planning Tribunal hearing, p. 26.

⁷⁶ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 168.

arguments of the participants. Notwithstanding this, I will finish this section by briefly commenting upon the rebuttal arguments mounted against the Electricorp case.

11.1.(v) *Dissenting Perspectives on the Provision of Electricity*

Opposition to Electricorp did not target the dollar valuations of the WD water and the special functions it performed within the system. It was argued, however, that such valuations did not represent the *full* costs of electricity production, and they vigorously opposed the idea that the commercial interests were inviolate. They asserted that investment decisions made in an era when expansive use rights were expropriated by executive fiat (the Order in Council), and regulatory controls and consultative processes were ineffectual, were issues that should be reviewed and brought in line with contemporary frameworks. In other words, the socio-ecological norms of the 1950s should not be concretised. Indeed it was held that the construction costs of the TPD were treated as sunk in economic analysis – they had already paid their way – then the flows could be returned in full. These assumptions underpinned all of the opposition arguments.

But as I noted above, the element of Electricorp's case that was most fully contested was the issue of the replacement of lost hydro-energy. The environmentalists argued that this would not necessarily require thermal generation (certainly not in the medium to long term) if ECM procedures were actively pursued and alternative forms of generation were adopted.⁷⁷ These arguments were backed up *in principle* by government policy.⁷⁸ However those sentiments held little sway given the limited scope and substance of official energy conservation and management programs.

Such hortatory exclamations and policy guidance held little sway in the juridical context.⁷⁹ Certainly, many of the arguments presented by opponents to the diversion (or level of diversion) while relevant, were ultimately *ultra vires*. The Planning Tribunal was able to express its sympathy for ECM measures, but given the scope of their statutory powers they were subsequently limited in their ability to decide on those grounds.⁸⁰ This was also the case with regard to the expression of historical Maori grievances and Treaty claims. The articulation of these arguments in the appeals process was more a process of raising agendas, and exerting political pressure, than of contributing to the substantive legal discourse. Notwithstanding this, the wider context of government policy is relevant to this analysis – and by this I mean on the one hand, official obeisance towards the *principles* of energy efficiency, and on the other hand a practical reluctance to induce energy users and producers to internalise their full costs.

⁷⁷ Cf. D. Haskell, (Energy management consultant), 1989, Evidence on behalf of the Minister of Conservation, Planning Tribunal hearing. Also M. Melhuish (Energy consultant), 1989, Evidence on behalf of the Whanganui River Maori Trust Board, Planning Tribunal hearing.

⁷⁸ Cf. Roger Blakeley (Secretary for the Environment), 1989, Evidence on behalf of the Minister for the Environment, Planning Tribunal hearing, pp. 16-18. The Director of Energy Policy at the Ministry of Energy, Andre Melkop, took a different line than Blakely. Melkop argued that the social costs of reduced diversion flows outweighed the social benefits from in-stream effects (although he did concede under cross examination that had not taken into account the Maori arguments). National Radio, 8 September 1989, *Checkpoint* Audiomonitor Transcript, Wellington.

⁷⁹ Despite the appearance of senior officials to outline government policy, the Planning Tribunal ultimately noted that such policy was an irrelevant consideration. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 65.

⁸⁰ Indeed the Tribunal determined that government energy policy was not a relevant consideration. *Ibid.*, p. 165.

I would like to briefly note as an addendum to this section the involvement of Ngati Tuwharetoa interests in supporting the Electricorp case. The Lake Rotoaira trustees, the Rotoaira Forest trustees, and Sir Hepi Te Heu Heu, owned large areas of land in the Whanganui and Whakapapa headwaters, and a particular interest in Lake Rotoaira which generated revenue for the tribe from trout fishing. Also, Tuwharetoa were seeking through the Treaty claims process restoration for losses incurred during the construction of the scheme, and it was their belief that any reduction in the commercial value of the scheme could diminish the value of any settlement. But ultimately the Planning Tribunal considered these to be economic and not cultural interests. The implication of this being that while the Tribunal was to have *particular* regard to Maori cultural and spiritual values in its decision, such economic values were not to be of special value in the ultimate balancing process.⁸¹

11.2. In-Stream Values: The Arguments for Increased Residual Flows

In the remainder of this chapter I discuss the central arguments for the increase in residual flows in the Whanganui River.⁸² I split discussion into two subsections. The first of these discusses the Maori arguments which figured prominently in the dispute. The second subsection details the conservation arguments, and there are two specific points I would like to make about this; (i) that I use the term conservation very loosely, and (ii) that I can only summarise the most significant arguments, and there were many finer points made during the dispute which are not possible to deal with here.

11.2.(i) *The Maori Arguments*

Ko Ruapehu te maunga
Ko Whanganui te awa
Ko Hau-nui-a-paparangi te iwi
Ko Turoa te tangata

Ruapehu is the mountain
Whanganui the waters
Atihau-nui-a-Paparangi is the tribe
Turoa is the man⁸³

The people of the Whanganui River, Te Atihau-nui-a-Paparangi, trace their Whakapapa back to the marriage of their tupuna Tamakehu and Ruaka, who had three children – a daughter Hinengakau, and sons Tamaupoko and Tupoho. These three are the eponymous ancestors of the river tribes, each associated with a portion of the river: “The traditional boundaries for Hinengakau’s Iwi are the upper reaches; for Tamaupoko from the Maunganuiateao to Matahiwi; and, for Tupoho from Matahiwi to the sea”.⁸⁴ The river itself plaits⁸⁵ the three peoples together in a bond of identity and kinship.

⁸¹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 103-4, 200.

⁸² These are the arguments that were presented at the Planning Tribunal hearing – as a consequence they were more fully developed than those presented earlier in the dispute. I discuss such developments (albeit in general terms) in Chapter Twelve.

⁸³ Taitoko Rangiwhakateka Tawhiri M.B.E (Kaumatua, Kai Korero, Rangatira), 1989, Evidence on behalf of the Whanganui River Maori Trust Board, Planning Tribunal hearing, p. 1.

⁸⁴ Hikaia Amohia (Kaumatua, Kai Korero, and Rangatira of the Hinengakau), 1989, Evidence on behalf of the Whanganui River Maori Trust Board, Planning Tribunal hearing, p. 2.

⁸⁵ “Hinengakau plaited a rope of peace with three strands (depicted on the house at Putiki) signifying the unity of the people of her brothers and herself”. J. M. Dawson (Counsel for the Whanganui River Maori Trust Board),

Maori occupation on the river had waxed and waned. Maori had lived along the river for many hundreds of years⁸⁶, and in the few hundred years or so prior to this century there was a significant population living both up-stream and downstream of Taumarunui.⁸⁷ It should be noted, however, that Hinengakau shared the upper catchment with Ngati Tuwharetoa, and hence at the time of the WRMF dispute both tribes claimed mana in respect to areas of the headwaters. Prior to Pakeha settlement Maori pursued a subsistence lifestyle dependent upon the river and the forest that surrounded it, and their impact upon the catchment ecosystem was minimal. European settlement changed this, with the history of the Nineteenth and early Twentieth century in the Whanganui being one of radical ecological and socioeconomic transformation. Land clearance for farming, the rise of urban centres with associated pollution and resource use, and the modification of the river channel to enable river boat navigation, were among the main causes of change. For the Maori communities these were years of dispossession of their territory and destruction of their traditional way of life. The effects were both qualitative and quantitative, with Maori populations diminishing greatly until the few decades prior to the WRMF dispute, when people started trickling back to the area. At the time of the dispute most Maori lived in the lower reaches of the river below Pipiriki, and in the vicinity of Taumarunui in the upper catchment. The middle stretch through the National Park was virtually unpopulated.⁸⁸ Furthermore, many Maori having moved away from the region still retained important links with the river.

Since the arrival of Pakeha, the river had been the source of political struggle. Recourse to the courts was by no means a new avenue for the Whanganui Maori. One renowned legal action – a claim to the bed of the Whanganui River – was initiated and doggedly pursued to its conclusion, by the late Titi Tihu, tohunga of the upper river. The claim was first heard before the Maori Land Court in 1938, from whence it proceeded along a complicated path of appeals through various courts, a Royal Commission, more courts, before being eventually dismissed by the Court of Appeal in 1962.⁸⁹ Such wider claims to authority over the river were ultimately judged to be beyond the scope of the Planning Tribunal's consideration of river flows.⁹⁰

1989, Opening Submission, Planning Tribunal hearing, p. 2. It would be wrong, however, to over romanticise the relations between these groups, whose history on the river was also one of inter-tribal and internecine rivalry.

⁸⁶ An estimated 14 generations spanned the period between the lifetime of Hinengakau and the turn of this century. D. Young, 1989, Supplementary evidence presented on behalf of the Whanganui River Maori Trust Board, Planning Tribunal hearing, p. 2. Young was basing his comments upon the work of the Maori historian, the late Dr Pei Te Hurinui Jones. For an excellent recent history of both Maori and Pakeha relationships with the river see: D. Young, 1998, *Woven By Water: Histories from the Whanganui River* Huia Publishers, Wellington.

⁸⁷ David Young quoted census figures of 3000 in the 1840's, but noted that this would be a conservative estimate as a large number of people from the upper stretches were absent during this period. Ibid.

⁸⁸ D. Young, 1989, "River of Great Waiting" *New Zealand Geographic* Vol. 3, July/September, pp. 95-115.

⁸⁹ D. Young, 1989, Evidence presented on behalf of the Whanganui River Maori Trust Board, Planning Tribunal hearing, pp. 8-22.

⁹⁰ I have noted previously that the Tribunal's scope of inquiry was limited by statute and legal precedent. In this instance the Planning Tribunal was acting on the basis of *Huakina v Waikato Valley Authority* [1987] 2 NZLR 188; 12 NZTPA 129 (HC) where in the consideration of a water right issue Justice Chilwell said: "Maori spiritual and cultural values ... cannot be excluded from consideration if the evidence establishes the existence of spiritual, cultural and traditional relationships with natural water held by a particular and significant group of Maori people". Claims to authority in respect to the river (whether tino ranagatiratanga or mana or kaitiakitanga) were judged by the Planning Tribunal to be beyond its powers. *Electricity Corporation*

However, for the Whanganui Maori the issues were inseparable, and in the context of this thesis they are vital to the explanation of Maori participation in the conflict.

The Planning Tribunal listed four broad values that described the Maori relation with the river, and underpinned the Trust Board's case. I will deal with each of these briefly. The first aspect is that the river was a taonga of central cultural and spiritual significance to the Whanganui Iwi. Professor James Ritchie described this relation:

The people of the Whanganui not only live by the River in the physical sense they live by the river in the ideological and cultural sense that it rules and governs the whole of their lives. The River is the central image, the creative source of who they are and what they are and everything relates to it. Their kinship, tying each to the other is tied back to the River. Their origin myths as well as the whole of the mythic and their social history relate primarily and primarily to the River. Those who speak with authority speak from the power of its waters. The air that they breathe is River air; the water in their blood is River water. Every concept or conception is in terms of the River.⁹¹

It was a relation of affinity, reverence, prestige, dignity, sustenance, strength and healing. One particular aspect of this relation that was constantly raised with reference to the WD was the notion that spiritual values are violated when waters are mixed in unnatural ways and between the jurisdictions of different tribes.⁹² However in political terms, it seems more likely that this was not a definitive principle, and that the issue was that if waters were to be mixed, then it should only be with the prior agreement of the affected tribes.

Secondly, the river was an important mahinga kai resource. The fisheries were extensive, with Maori harvesting a variety of freshwater fish and shellfish (kakahi) species. The fishing methods were similarly varied, and of particular historical significance was the use of eel baskets (hinaki) and systems of permanent eel weirs that spanned the main river channel (pa tuna – and pa piharau to catch the highly prized lamprey), especially in the middle reaches of the river. By the time of the WRMF dispute, the traditional weirs had disappeared although some more modern versions stood in their place. Hinaki were still routinely used, and there had been a recent resurgence of interest in traditional food gathering methods.⁹³ However as I noted in Chapter Ten the fishery had experienced a significant decline since earlier this century. The variety and stocks of species had reduced due to wider disturbances in the catchment, and according to the Maori advocates, the loss of the high quality flows from the headwater streams. The loss of the fishery was a source of considerable sadness for the river tribes, partly because it reduced their ability to provide traditional forms of hospitality and sharing of resources with neighbouring iwi – for this reason it adversely affected the mana of the people.⁹⁴ Thirdly, the river had traditionally been used for recreational purposes such as swimming, and it was argued that the decline in water quality and build up of silt had forced the cessation of this activity along certain stretches of the river.⁹⁵ Finally, the river had been a traditional highway for canoe travel. The Planning Tribunal did not consider such *past* uses to be a basis for making a decision about the minimum flow. However, it did have regard to contemporary and future use. An example of

of New Zealand Ltd v Manawatu-Whanganui Regional Council October 1990, Judge Sheppard, W70/90, p. 61.

⁹¹ James Ritchie (Professor of Psychology, University of Waikato), 1989, Evidence on behalf of the Whanganui Maori Trust Board, Planning Tribunal hearing, p. 7.

⁹² *Ibid.*, pp. 6-7.

⁹³ D. Young, 1989, "River of Great Waiting" pp. 109-11.

⁹⁴ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 101.

⁹⁵ *Ibid.*

such use was the annual pilgrimage of Maori down the river by canoe. The purpose of those voyages was to bring the people together with the wairua of the river. The Tribunal did recognise that such values would be enhanced by the restoration of flows to the river.⁹⁶

The overall attitudes of Whanganui Maori towards the WD and the TPD were not, however, straightforward:

The Maori attitude is that to take some of the water of the river is to take some of the life of an ancestor; reduction of the natural flow of the river is demoralising for them. An interference with it breaks the sacred affinity of the people with the river, and reduces its mana.

The diversion of some of its headwaters reduces its value and significance and breaches its spiritual integrity; its mauri is disrupted; its sacredness is desecrated; and its effectiveness for healing is affected.

However, there is not absolute opposition to the abstraction of river water. The attitude of the iwi would depend on the use to which the abstracted water would be put; and of whether it would come into contact with water from another source. Whether abstraction is acceptable would depend on their perceptions of whether it is detrimental to the culture, or to the environment (with nature, not against it); on whether the abstraction is perceived as a squandering of the resource, a manifestation of greed or selfishness; and on whether it is made after reference and regard to the Maori people, and with appropriate rituals and observances.⁹⁷

In his decision Judge Sheppard quoted two key witnesses, and I include their statements here because they reveal the complex nuances of the Maori argument. First, the comments of Taitoko Tawhiri:

"There is enough on the eastern side to provide Electricorp with all the water it requires instead of fishing on the source of our Whakapapa to allow the supply of water so that they can make their millions of dollars".

Yet when faced with the question of whether he had any problem with the waters being taken from the Whanganui, Hikaia Amohia – kaumatua, rangatira and kai korero of the Hinengakau – answered:

"Not really when you look at it. I'm talking about balance, power and water and community owned ..."⁹⁸

Mr Amohia's comments should not be construed as an exculpation of the TPD and the WD, for at that time the opposition of Whanganui Maori was absolute. His comments, instead, spoke of a time when mana was restored, and Te Atihau-nui-a-Paparangi free to exercise their tino rangatiratanga and kaitiakitanga with respect to the river. But the Maori people of the river were looking back at a hundred and fifty years of gradual dispossession of their rohe, and destruction of their traditional life along the river. The principles or tikanga that had traditionally guided their relationship with their environment were being violated by the diversion. And, not to be underestimated, there was much resentment about the way the electricity planners had excluded them from the original planning process.

So while the relationship between Maori and the river was complex, the stance they adopted in the dispute was clear. The continuation of the diversion of the water was a grave affront to the spiritual values and mana in the river, not to mention the environmental concerns held (although these were seen to be inextricably bound together). The Whanganui River Maori Trust Board (which consisted of nine members, three from each of the river Iwi) consistently advocated for the complete restoration of the natural flows to the river.

⁹⁶ Ibid., pp. 10-2. Professor Ritchie also includes the river as a means of communication. 1989, Evidence on behalf of the Whanganui Maori Trust Board, Planning Tribunal hearing, p. 9.

⁹⁷ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 102.

⁹⁸ Ibid., pp. 102-3.

11.2.(ii) *The Conservation Arguments: In-stream Values*

The conservation arguments discussed here are founded upon the biophysical effects discussed in the latter half of Chapter Ten. I started that analysis by noting the effects of reduced flows upon the hydrological record. In the Whakapapa River these were; reduced mean flows, reduced minimum flow, absence of seasonal variation, reduced base flows, negative surges, ad hoc releases, reduced peak flows, reduced number of peak flows, and truncated recessions. For the other intake streams the effects were even more drastic – namely, the complete de-watering of the reaches below the diversions. This altered flow regime negatively impacted upon the environmental domain, causing; a reduction in wetted area, altered hydrological conditions, modified thermal regime and diminished water quality. It also had deleterious effects upon the sediment regime with; decreased bed-load discharge (such as the sand sized particles necessary for the 'cleansing' of the river), decreased capacity for the transport of fine silts (hence build up of slimy deposits), an increase in suspended grey silts (most notably from the spalling of uncovered papa ledges), and probably some increase in siltation in the Whanganui harbour and estuary – although the Planning Tribunal noted that this correlation was difficult to maintain.

The biological effects of the diversion were complex and of varying certainty. The impacts upon the stream ecology were more easily observed and of greater note closer to the point source of disturbance. As I noted previously, there was almost universal acceptance that there had been adverse effects in those reaches. Most notably, (i) the decreases in habitat, biomass, and species diversity, (ii) the resetting of community structures, and (iii) the change from a rich fauna adapted to low-periphyton levels to a degraded lotic system with increased periphyton. The diversion had also impacted upon species further up the food chain. The trout fishery had certainly declined in the uppermost reaches (below intakes), and potentially declined below Kakahi; the native fishery had similarly declined; and it was highly probable that the diversion had had a deleterious effect upon the threatened Blue Duck population. Evidentiary matters were crucial here. As I noted previously, the anecdotal evidence, which in many instances involved decades of day-to-day close observation, was given some weight by the Planning Tribunal.⁹⁹ However, the scientific discourse that required a high burden of proof and was constrained by a lack of baseline data, had a conservative effect on the Tribunal. So, for the purposes of explicating the conservation argument, it is important to stress that the case argued by the conservationists identified far higher levels of disturbance and damage, and a higher degree of risk, than was ultimately accepted by the Planning Tribunal. This was not to rule out the veracity of their claims.

The in-stream advocates argued that these biophysical disturbances had a range of negative impacts upon in-stream values. I will discuss these in the following order: ecological arguments, landscape arguments, and recreational arguments. Again, each of these categories is inter-connected.

⁹⁹ For example, a number of people commented on the remarkable quality of the evidence presented by John Erceg, a farmer who had lived on the river for 50 years. John Ombler (then District Conservator, Whanganui), 1998, Personal interview, Wellington. His evidence was that of an experienced naturalist. He had observed: Silt where previously there had been sand; Shingle was not moving; The colour was no longer green but yellow-brown, and the water unclear; The river smelled rotten; Navigation had deteriorated markedly; Wildlife had decreased – eels had died because of increased water temperature, there were no freshwater mussels, lamprey or shags, and kingfishers were less common. John Erceg, 1989, Evidence on behalf of the Minister of Conservation, Planning Tribunal hearing.

The conservationists argued that the biophysical effects of the reduced flows constituted a significant ecological cost. This argument was framed in terms of the *intrinsic* values of the ecosystem. The Department of Conservation defined such values as follows: "A river's intrinsic values are those values inherent, essential, and naturally belonging to it. They give it its special character and its capacity to sustain life".¹⁰⁰ They then went on to aver:

The evidence contained within the DOC's submission has shown how the hydrological regime – that which the river evolved with, has been destroyed by headwater diversions. The natural processes and river ecology have been severely disturbed and many water quality characteristics of the Whanganui altered.

The vitality, sparkle and sound of waters cascading down rapids have gone or been much reduced and the flow patterns which made the valleys and channels have also undergone major change.

Though the hydrological regime has been altered in the past by natural and man-induced events, the scale and impact of the TPD was of a new order of magnitude. As a consequence, the already altered intrinsic values have suffered extreme effects.¹⁰¹

The notion of intrinsic values is a highly, indeed essentially, contested one in environmental philosophy.¹⁰² But, as I noted in the Black Head study (6.4.(i)), it is possible to grant the force of the conservationists' argument – and to speak of natural values – without subscribing to the idea of an ultimate 'self-sufficient' form of value.¹⁰³ As I argued at the close of the previous chapter, the very notion of an ecosystem connotes values, hence we speak of the *integrity* of the system, and disturbances are seen as negative impacts if they weaken the natural processes that define the system. This language penetrated the arguments of all participants in the dispute. The Planning Tribunal, constrained by the statutory terms of reference contained within the *Water and Soil Conservation Act 1967* referred to the 'natural values' of the river, making no mention of 'intrinsic' values.¹⁰⁴ But the presumption that nature was fundamentally valuable underpinned the discourse.

The conservation argument can be broken down further. The above quote mentioned the ability to *sustain life* – the life-support argument is a common and forceful one in environmental politics. Another important element of the conservation argument, most conspicuous with respect to the Blue Duck, was that of scarcity value. This was mainly in respect to the wider contextual issues of decreasing bio-diversity and the value of *species*. It was argued on behalf of the Minister of Conservation that the restoration of natural flows would provide habitat for a further 12 pairs of the threatened birds.¹⁰⁵ A further argument presented was that it was no longer *ethical* to divert all flows from a natural watercourse. The norms of environmental planning had

¹⁰⁰ Department of Conservation, May 1988, "Whanganui River Minimum Flows Submission" Catchment Board hearing, p. 6.

¹⁰¹ *Ibid.*, pp. 6-7.

¹⁰² Indeed, it is taken by many to be *the* most important issue in environmental ethics. K. Parker, "Pragmatism in Environmental Thought" In A. Light, and E. Katz, (eds), 1996, *Environmental Pragmatism* Routledge, London, p. 34.

¹⁰³ A. Weston, "Beyond Intrinsic Value: Pragmatism in Environmental Ethics" In A. Light, and E. Katz, (eds), 1996, *Environmental Pragmatism* Routledge, London, pp. 285-306.

¹⁰⁴ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 124.

¹⁰⁵ *Ibid.*, p. 114. Although it was acknowledged that any such estimate carried with it considerable uncertainties. Not the least of which were the effects of terrestrial disturbances in the catchment, and the state of contiguous populations.

changed since the design and construction of the TPD, and the received wisdom by the time of the dispute was that some residual flow was required as a matter of principle.¹⁰⁶

I have taken some liberty here in drawing out the types of values that were implicit in the conservation arguments. The systematic philosophical treatment of value did not figure greatly in the dispute. The conservationists were essentially arguing that this catchment system was of significant ecological value, that those values were depleted due to the effects of the diversion, and that the restoration of flows would have a positive effect upon those values if the new regime provided increased habitat, greater flow variability, and an improvement in water quality.

In many respects the ecological arguments pre-figured the landscape arguments which referred to the personal and cultural interpretations of those effects. In the Planning Tribunal these were dealt with under the heading *wild and scenic qualities*. The Tribunal itself observed: "Our own visits to the Whanganui and Whakapapa Rivers confirm the common understanding that many stretches of them possess natural wild and scenic qualities for which they are highly valued".¹⁰⁷ The conservationists argued that both of those types of values were severely diminished as a consequence of the WD. They asserted that the upper reaches of the Whakapapa River "has such a low flow that it no longer sounds like a free-flowing river; that the high levels of algal growth have an unpleasant feel, and at times an unpleasant smell".¹⁰⁸ In the middle reaches they utilised arguments of locals such as John Erceg, whose evidence I referred to before, he described a loss of quality in the river environment – the discolouration, slime, silt, smells, reduction of wildlife, etc. – that diminished the experience of living alongside or visiting the river. Such arguments were not restricted to the odd disgruntled resident. As I shall show in the next chapter, large numbers of people expressed such sentiments by means of written and oral submissions, surveys and participation in interest groups.

The types of landscape values articulated during the dispute occupied a spectrum which included: The straightforward issue of scenery preservation and aesthetics; The naturalistic appreciation of biophysical processes, connections, species, natural history, and integrity. Perceptions of the natural values discussed above; A historical sense of place and heritage; And spiritual connections (in which case landscape may be an insufficient term).

The conservation argument was that all of these types of landscape values were significantly damaged by the reduction in flows. There was some disagreement. On behalf of Electricorp a consulting landscape architect deposed that although the affected areas were of very high quality, none of them were of outstanding value. He went further, noting that although increased flows would have positive effects upon the scenic values of the river, they would have no effects upon the wild values – such values were more substantially affected by the surrounding landscape.¹⁰⁹ This point was accepted by the Planning Tribunal.¹¹⁰ It would

¹⁰⁶ John Ombler (then District Conservator, Whanganui), 1998, Personal interview, Wellington. This principle was to eventually undergird the government's guidelines for setting flows. Ministry for the Environment, May 1997, *Flow Guidelines for In-stream Values* Ministry for the Environment, Wellington.

¹⁰⁷ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 121.

¹⁰⁸ *Ibid.*

¹⁰⁹ William Hansen (Consultant landscape architect, Works and Development Services Corporation), 1989, Evidence presented on behalf of Electricorp, Planning Tribunal hearing.

¹¹⁰ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 122.

seem, however, that this convenient technical separation of the river from the surrounding landscape in determining the 'wilderness' element did not reflect the strong opinions of those who were familiar with the area. Finally, the statutory framework within which the Planning Tribunal operated ruled out reference to the wider landscape values.

The last major component of the conservation case revolved around the in-stream needs of recreation. The major forms of recreation on the Whanganui River were (i) angling, kayaking and rafting in the reaches between the Whakapapa intake and Taumarunui, and (ii) canoeing, jet boating, swimming and river-boating, mostly in the stretch between Taumarunui and Pipiriki, but also down to Whanganui itself. Although local residents enjoyed many of these activities, the vast majority of river users were from beyond the region and hence were tourists. Moreover, while many of these activities did not necessarily involve a direct financial charge to the users, their presence and activity did bring considerable economic benefits to the region. I will first discuss the activities themselves and the associated use-values, before ending discussion with reference to the commercial benefits.

The value of the river for angling was primarily dependent upon the state of the trout fishery, and hence the health of the lotic ecosystem in the upper reaches. It was also, to some degree, dependent upon the landscape values presented above, which contributed to the ultimate quality of the recreational experience. In the past the Whakapapa, in particular, had been a trout fishery of some international repute, and ninety percent of anglers came from out of the district.¹¹¹ It had also been of some value as an alternative to the overcrowded Tongariro River.¹¹² The conservationists argued that the fishery had suffered as a result of the WD. As I recorded in the Chapter Ten, the Planning Tribunal held that there had been a very significant decline in trout numbers in the Whakapapa between the intake and Oio seven kilometres downstream, but that further downstream towards Kakahi (reputedly the best fishery) there had been no significant decline.¹¹³ But also, this was an extremely conservative analysis of the scientific evidence presented, and furthermore, was contrary to the body of anecdotal evidence presented by local fishermen who had observed a marked decline in the standard of the trout fishery extending beyond Kakahi.¹¹⁴ The Planning Tribunal did recognise, however, that the increase of algae in the riverbed had diminished the wilderness experience for anglers.

The other main activities in the upper catchment were white-water kayaking and rafting. The conservationists argued that these activities were severely curtailed by the abstraction of water, and that the low flows had the effect of reducing the amount of days per year when these pursuits could be undertaken, the size of rafts that could be used, and the quality of the experience. Both activities had not occurred prior to the diversion. The Tribunal did recognise these values, noting that "the Whakapapa River, particularly from the intake to the Whanganui confluence, has considerable potential for rafting and kayaking ... and under natural flow conditions can provide very exciting white-water experiences". It also acknowledged that the

¹¹¹ *Ibid.*, p. 125.

¹¹² This was vigorously argued by the members of the Minimum Flows Coalition. Cf. Tom Wells (King Country resident and retired principal of Whanganui Collegiate), Submission on behalf of the Whanganui Minimum Flows Coalition, Catchment Board hearing, Whanganui.

¹¹³ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 119-20.

¹¹⁴ Such as James Gosman and Manu Lala who presented evidence on behalf of the Whanganui River Flows Coalition in the Planning Tribunal hearing.

numbers of people using the river for these purposes rose vastly when the diversion was shut down for any reason.¹¹⁵ To provide some idea of the popularity of these uses, a survey conducted for 1988 estimated 2,809 visits for rafters, canoeists, and kayakers, and 19,630 visits for anglers to the *upper* Whanganui and Whakapapa rivers (note here that these figures were under the extant regime).¹¹⁶

The stretch of the river between Taumarunui was, and remains, the most canoed in the country. Providing a multi-day wilderness journey through the spectacular river gorges described in the previous chapter. In the summer of 1988/89, a total of 18,000 recreational canoe days were spent on the river.¹¹⁷ Jet boating was another important recreational and commercial use of the river in this stretch. Also, there had since last century been a history of shallow drafted river-boats being used to transport and accommodate tourists and goods through the lower and middle reaches of the river. At the time of the dispute, there was one river boat operator on the river who wanted to expand his business.¹¹⁸ The recreation and tourism argument was based upon surveys of river users, and the observations of tourist operators, Department of Conservation staff and locals. They argued that the reduced flows made navigation more difficult at the times of year when the river was under the greatest pressure from users – that is the summer months. They also argued that the negative impact upon the ecological and landscape values such as smells, discolouration, slime, higher silt load, decreased animal life, and degraded riparian zones, all served to diminish the quality of experience for users. In rejoinder to this Electricorp's witnesses argued that the WD was only one of many causal factors that had led to the overall degradation in such qualities, that navigation troubles had always existed in the stretch below Taumarunui, and that the effects on flow levels became negligible further downstream. There was undoubtedly some truth to these claims. However they really pointed to the solution at the level of total catchment management rather than undermining the veracity of the recreational arguments. The Planning Tribunal recognised that a reasonable minimum flow level at Te Maire would not always neutralise these problems, but it would significantly mitigate these negative effects.¹¹⁹

The recreational value was the only in-stream value to be given an estimated money value. Electricorp did this as part of its national benefit-cost analysis, which was in fact a very partial and incomplete exercise. These values did *not* represent the *total* recreational value, but rather the *additional* value of increased flows. There was no effort to calculate the value of existing use. Nevertheless the figures are interesting. They calculated figures for each of the potential flow regimes, so as with my treatment of the values of generation, I will only include here the value of the restoration of all flows to the river. Any other regime would represent a portion of these figures:

Net present value @	4 percent	\$19.12m
(discount rate)	7 percent	\$13.24m

¹¹⁵ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 126-8.

¹¹⁶ Murray-North Ltd. and Survey Research Ltd., 1989, "North Island Fresh Water Recreation Survey" Murray-North Ltd., Auckland.

¹¹⁷ D. Young, 1989, "River of Great Waiting" p. 98.

¹¹⁸ This was Winston Oliver who owned the vessel MV Wakapai. As I shall observe in the following chapter, Mr Oliver played a significant part throughout the dispute.

¹¹⁹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 129-31.

Net present value @	4 percent	\$19.12m
(discount rate)	7 percent	\$13.24m
	10 percent	\$9.69m ¹²⁰

Even despite the neglect of the value of extant use these figures represent a considerable economic value. Indeed, the Planning Tribunal concluded that the Whanganui River a tourist resource of national significance.¹²¹ The value of the river as a recreational resource within the region itself applied *a fortiori* to this argument.

Having set out the main arguments on both sides of the dispute, it is important to stress that the period of greatest value of the water for Electricorp (late summer) was also the time of greatest need within the river system itself, whether in terms of the ecology (ie. the period of greatest heat stress) or of human use (the summer-Easter period). The contemporaneity of these needs served to heighten the discord between the uses.

Finally, an undercurrent running through much of the conflict was the tension between the regional and national interest. This issue was largely about the ownership and control of the water resource. While this issue was ultimately beyond the scope of the legal proceedings it permeated much of the argument. It should be noted, however, that this opposition was not concomitant with the business-conservation split, for the conservationists utilised both the regional interest argument and the national interest argument at various times.

11.3. Conclusion

In this chapter I have traversed the arguments surrounding the diversion of water. The discussion pivoted around the substantive divide at the heart of the conflict – whether or not to divert the headwater flows through the TPD, and if so, then how much water should be diverted. The chapter was thus split into two sections, with the first section dealing with both the historical political economy of electricity generation, and the specific arguments for the diversion of flows that arose out of that context. In that section I observed that the generation and transmission of electricity has been an essential infra-structural role that underpinned social and economic development. In recent decades a state monopoly generator of one form or another has undertaken that role, and the exclusive control of that strategic function has carried with it significant institutional influence. However, during the period of the conflict that function went from being controlled by a core state agency motivated by the strategic guarantee of supply, to a state owned enterprise, at arms length from political control and motivated almost wholly by profits. The second half of that section dealt with the role and value of the TPD and Western Diversion in turn, within the integrated generation network. This was the essential argument provided by Electricorp in its advocacy. The main point to note here is that Electricorp's essential interests were financial ones as it chased after exchange-value.

The second section dealt with the countervailing arguments for the retention of either an increased portion, or all, of the natural flows within the Whanganui headwaters. The two main

¹²⁰ Ian Fraser (Senior associate, Murray-North Ltd.), 1989, Evidence on behalf of Electricorp, Planning Tribunal hearing. These figures – and the Whanganui minimum flows issue – are discussed in: C. Cocklin, I. Fraser and M. Harte, 1994, "The Recreational Value of In-Stream Flows: The Upper Wanganui and Whakapapa Rivers" *New Zealand Geographer* Vol. 50, No. 1, pp. 20-29.

¹²¹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 125.

strands of argument were on the one hand, the values/interests articulated by the Tangata Whenua of the river, and on the other hand, those of wider conservation, recreational and tourist interests. The main observation to be made here was that those arguments were primarily non-commodified. All of this information is crucial to both the presentation of the historical narrative of conflict in the following chapter, and to the systematic analysis of the dispute along the lines of the analytical framework in Chapter Thirteen.

The Whanganui River Minimum Flows Conflict Processes and Substantive Outcomes

12. Introduction

This Chapter is largely a historical narrative of the dispute. It is organised this way because this form of argument usefully conveys the dynamic pattern and causal relationships of this conflict. Discussion is restricted to the period between the setting of an initial minimum flows regime in the early 1980s, and the March 1992 High Court decision on flow levels (note that I dealt with background features in Chapter Ten). The dispute is easily split into three main phases, with each period resulting in a substantive minimum flows regime. I will therefore intersperse the historical narrative with brief descriptions and basic analyses of those respective decisions. I also highlight the reactions of the various actors towards them. To assist in that process I would like to reiterate a couple of basic points.

At the conclusion of Chapter Ten I noted that the operation of the Western Diversion had deleterious effects upon the Whanganui River system. I also observed that there was a tendential connection between the two; the greater the levels of abstraction then the greater the levels of environmental harm (I was at pains to stress, however, that the relation was a complex one). Furthermore, in Chapter Eleven I made the simple connection between the various interests and flows; the interests of the NZED and later, Electricorp, lay with the maximum abstraction of the headwater flows, and the interests of all of the in-stream advocates with the retention of in-stream flows. These basic relationships and tendencies form one basis by which to judge the progress of the dispute.

Finally, this chapter completes the largely empirical element of the case study, with Chapter Thirteen being devoted to the systematic investigation of the mechanisms of business dominance explicated in Chapters Four and Five. These empirical chapters provide a solid contextual foundation for that broad interpretive exercise.

12.1. The 1983 Minimum Flow Regime

The immediate origins of the WRMF dispute can be traced back to a letter sent by the New Zealand Canoeing Association to the National Water and Soil Conservation Authority (NWASCA) in 1977. The Association was concerned about the actual and potential effects of

development – principally hydro-development – upon the Whanganui, Buller and Motu rivers. They sought to prevent or mitigate such effects by petitioning NWASCA to declare the rivers to be of national importance under S. 23 (7) of the *Water and Soil Conservation Act 1967* (the ‘Water Act’). The Authority, however, considered this mechanism to be inappropriate for this purpose. But instead of dismissing the canoeists’ request outright, they initiated action on the Whanganui issue under an alternative provision that allowed for the fixing of a *minimum acceptable flow*.¹ The Rangitikei-Whanganui Catchment Board was subsequently asked to prepare a water allocation plan for the catchment, and to investigate and recommend a desirable minimum flows regime for the river.²

There was scant precedent about the procedure of fixing minimum flows, and so NWASCA requested that the Catchment Board follow the process prescribed for Crown water rights applications, which included publicly notifying the issue, and the consideration of written and oral submissions.³ The Catchment Board promptly commissioned a report on the water resources of the river and this was completed by December 1978.⁴ This report was used as the basis of a public discussion paper, and submissions were called for and received by August 1979. The focus of the paper was broad, however, with the minimum flows issue subsumed within the wider context of integrated catchment management, including land use, waste disposal and water rights issues, etc. For two years following this initial flurry of activity the minimum flows issue was set to one-side by the Catchment Board, its priorities lying elsewhere. When they did return to the issue in August 1982, the Chief Engineer, Don Spence, decided to focus the process solely upon the minimum flows issue. A further discussion paper was released and once again submissions were called for.⁵ Finally, after a short public hearing, the Board recommended to NWASCA that it establish the following:

1. A minimum flow at Te Maire (16 km below Taumarunui);
2. That it be fixed for a five year term, after which it would be reviewed;
3. A minimum flow of 22 cumecs be fixed for the period between 1 December and 14 February, and for the Easter holiday;
4. For the remainder of the year the minimum flow to be set at 16 cumecs

NWASCA subsequently ratified this recommendation and accepted the Board’s request that implementation be deferred until the end of 1983 so that the practical aspects of implementing the regime could be worked out with the NZED.⁶

There was little in this establishment process to herald either the substantive complexity or the political intensity of the later conflict. In many respects the Canoeing Association request determined the focus and terms of inquiry. They asserted that the reduced flows had resulted

¹ S. 14(3)(o). A. Gibson (Director of Water and Soil Conservation, Ministry of Works and Development), 1 November 1977, Memorandum to the Chairman, National Water and Soil Conservation Authority.

² A. Gibson (Director of Water and Soil Conservation, Ministry of Works and Development), 16 December 1977, Letter to the Secretary of the Rangitikei-Whanganui Catchment Board.

³ Ibid.

⁴ Tonkin and Taylor, Consulting Engineers, 1978, “Water Resources of the Whanganui River” Report commissioned by the Rangitikei-Whanganui Catchment Board, Marton. This report was to be referred to throughout the dispute.

⁵ John Garrett (Resources Manager, Rangitikei-Whanganui Catchment Board), 11 August 1982, Letter to the General Manager, New Zealand Electricity Division, Ministry of Energy.

⁶ Don Spence (Chief Technical Officer, Rangitikei-Whanganui Catchment Board), 8 November 1982, Letter to the Director of the Water and Soil Conservation Division, Ministry of Works and Development.

firstly, in navigational problems, and secondly, contributed to a general decline in the aesthetic value of the river – due to decreased dilution of waste water inflows, discolouration, etc. Also, their concern was with the middle reaches of the river below Taumarunui. While the later submissions broadened the discourse, the majority focused upon the recreational interests of canoeists and jet boaters, or upon the scenic values, of those same reaches. Biological issues were not treated with any degree of sophistication, and, while the Ministry of Agriculture and Fisheries raised the effects of flows upon the fisheries, their analysis remained unfocused. Moreover, the Board felt that the fisheries in the headwaters were already protected by the Kakahi agreement. The concerns of Maori were articulated in a single submission from the Whanganui River Reserves Trust. They expressed their fundamental opposition to any changes to the river's natural flow, and raised peripheral issues such as the possibility of future hydro-development on the river and the problem of sewage discharge, but they ultimately supported the 22 cumec flow suggested by the Board.⁷

The NZED argued, not surprisingly, against the establishment of a minimum flow regime. At first they asserted the inviolability of their water right and questioned the legality of any minimum flow that would constrain that right.⁸ Don Spence countered this by noting that S. 24 (D) of the *Water Act* provided the power to restrict or suspend a water right to maintain minimum flows.⁹ Failing this the NZED asserted that there was no need to set a minimum flow under the *Water Act*, as the needs and concerns of river users could be well met through voluntary undertakings similar to the existing Piriaka and Kakahi agreements. But their substantive argument was based on cost, which they consistently calculated and articulated on a dry year basis (\$1m rather than approximately half that in a normal year). Furthermore, they made no effort to deal with the concerns or arguments of other parties. Towards the end of this process, while they were maintaining their opposition to the minimum flow in principle, they were simultaneously arguing for a lower minimum flow level over the summer months than the 22 cumec figure preferred by the Board.¹⁰ Finally, for the NZED, the amount of water lost to the system due to the imposition of the 1983 regime amounted to approximately five percent of the total water abstracted in an average year. While this was not an insignificant sum it seems that it was judged by the NZED to be bearable or at least politically unavoidable

At this stage the minimum flows issue was not politicised. What is interesting about this period is the extent to which the process was controlled by a single person – Don Spence – who, while following the broad process set out by NWASCA and the *Water Act*, acted as a gatekeeper on the substantive arguments presented. He set out the initial flow options, summarised the submissions, and identified the regime (including its five year term) that was ultimately adopted. His approach was somewhat paternalistic as he acknowledged the value of expressions of opinion within the submissions, but was pedantic on matters of technical detail (especially from

⁷ Don Spence (Chief Technical Officer, Rangitikei-Whanganui Catchment Board), October 1982, Summary of submissions on the Whanganui River minimum flows, Rangitikei-Whanganui Catchment Board, Marton.

⁸ Although their legal advice later confirmed that the Catchment Board was acting within its powers. A. Munro (Assistant Office Solicitor, Ministry of Energy), 12 February 1982, Letter to A. Hatrick, New Zealand Electricity Division.

⁹ Don Spence (Chief Engineer, Rangitikei-Whanganui Catchment Board), 19 December 1979, Letter to the General Manager New Zealand Electricity Division.

¹⁰ New Zealand Electricity Division, September 1982, "Whanganui River Minimum Flows Submission to the Rangitikei-Whanganui Catchment Board" pp. 19-21.

government agencies) such as, for example, with the MAF submission on the fishery.¹¹ Having determined the merits of a minimum flow he was forthright in protecting the process from the bureaucratic obstruction and influence of the monolithic NZED. Because of this, this formative stage of the dispute was symptomatic of a period when interdepartmental rivalry tended to be played out behind the scenes as distinct from the very public process that characterised the later stages of the dispute.

There were a number of further reasons why this process was less politically fraught than later episodes: The first of these was that public discontent about the river was unfocused. The concern about the upper reaches was by 1983 being channelled towards the alternative mechanism of a Local Water Conservation Notice to protect the Whakapapa River.¹² Also, Maori were otherwise concerned with the longstanding ownership issues that I discussed in the previous chapter, and were seeking restitution through the Treaty of Waitangi claims process.¹³ The second, was the question of expectations. The editorial response of the *Taumarunui Gazette* to the setting of the 1983 flow was indicative of this, boldly declaring that the "stranglehold' of New Zealand Electricity on the Whanganui River has been broken", despite the essentially small adjustment that had occurred.¹⁴

Lastly, in response to the needs of the analytical framework, it is necessary to deal with the issue of resources. The greatest expenditure of time and money was by the Catchment Board, mainly in commissioning the Tonkin and Taylor report, but also in managing the decision process. This money, however, was provided by central government through a grant from NWASCA.¹⁵ Most of the other parties devoted few resources to the issue. These costs were probably kept down due to the fact that none of the parties sought to rebut the arguments of others, and hence both research and advocacy costs were limited.

12.2. The 1988 Catchment Board Review

By the mid 1980's the issue of water flows in the Whanganui River was again on the administrative and political agenda. A *de novo* review of the minimum flows issue was set for mid 1988, prior to the expiry of the 1983 regime. This review was to become the focus, or at least the avenue of expression, for a range of historical and emerging grievances. In this section I deal with the first stage of the review process which was held under the stewardship of the Rangitikei-Whanganui, later the amalgamated Central Districts, Catchment Boards. I begin here by tracking the two main strands of political action and conflict that preceded and shaped the review process.

¹¹ Don Spence (Chief Technical Officer, Rangitikei-Whanganui Catchment Board), October 1982, "Summary of submissions".

¹² Keith Chapple, 9 March 1983, Letter to Rangitikei-Whanganui Catchment Board.

¹³ Don Spence (Chief Technical Officer, Rangitikei-Whanganui Catchment Board), October 1982, "Summary of submissions".

¹⁴ *The Taumarunui Gazette* November 15, 1983, p. 1.

¹⁵ A. Gibson (Director of Water and Soil Conservation, Ministry of Works and Development), 16 December 1977, Letter to the Secretary of the Rangitikei-Whanganui Catchment Board.

12.2.(i) *The Water Rights Issue*

Since the early stages of the TPD there had been lingering resentment in the Taumarunui region about the original planning process, and the subsequent loss of water in the upper reaches. As I noted in the previous section, the Friends of the Rivers at Kakahi Society (FORKS) had in 1983 sought, and subsequently failed to get, a Local Water Conservation Notice for the Whakapapa River. Keith Chapple, a resident of Kakahi, had led this effort. In 1987 Chapple was the Chair of the King Country Branch of the Royal Forest and Bird Protection Society (hereafter Forest and Bird). The process of producing a management plan for the newly formed Whanganui National Park had recently drawn attention to the flows issue.¹⁶ At the group's AGM in May of that year, the Branch identified water flows as an issue of concern and resolved to act on it. Chapple quickly set to writing a booklet on the genesis of the TPD and its resultant impacts upon the environment and local community. *The Rape of the Whanganui River* was published on 10 October in order to publicise a meeting that the Forest and Bird had called to gain support for the issue.¹⁷ Held in Taumarunui the meeting attracted 90 people, and it was there that the Whanganui River Flows Coalition (the Coalition) was formed for the purposes of campaigning for the restoration of flows.¹⁸ In time the membership of the Coalition was to swell to 35 community groups and many more individuals. Chapple asserted that the membership totalled around 60,000, and in a sense it did, given the national membership of groups such as Forest and Bird.¹⁹ At the Coalition's first meeting shortly after this, an executive of 11 was established and policies decided. Significantly, instead of setting their sights on the minimum flow review to be held the following year, they focused upon the question of water rights – a review of the water right for the river was seen as the best forum within which to deal with the fundamental questions about the management of the river.²⁰

The corporatisation and possible privatisation of the generation system precipitated this focus upon the water right issue. In order to maximise the asset value of the Corporation the government intended to include existing water rights in the sale and purchase agreement. However:

[t]he coalition was concerned that the transfer of the water rights would deprive the community of any control or input into the management of the river, and could lead to Electricorp imposing charges on river users. It was also concerned Electricorp would have little incentive to reduce its intake from the catchment.²¹

¹⁶ Indeed the Taumarunui County Council went so far as to suggest that DoC "take steps to have the river eventually included the Park". *The Daily News* 18 May 1987.

¹⁷ K. Chapple, 1987, *The Rape of the Whanganui River: One of New Zealand's Most Misguided Engineering Projects* C and S Publications, Taumarunui. The launch of the booklet was covered in all of the regional papers: *The Daily News* 12 October, *Whanganui Chronicle* 10 October, and *Taumarunui Gazette* 13 October.

¹⁸ *Daily News* 22 October 1987. At this stage the following groups planned to join the Coalition: Naturally Whanganui, Canoe Safaris, Mt Maunganui Tramping Club, Taupo Tramping Club, Taumarunui Tramping Club, King Country Forest and Bird, Federated Mountain Clubs of New Zealand, Taumarunui Boating Club/NZ Jet Boat Association, Whanganui City Council, Ohwango Community Council, River City Canoe Club, Taumarunui District Promotion and Development Association, Manu Ariki Marae, and Winston Oliver the riverboat operator.

¹⁹ Indeed it was to later include such 'sedate organisations' as the local branch of Federated Farmers and the Whanganui Chamber of Commerce. *New Zealand Herald* 2 January 1988.

²⁰ *The Daily News* 2 November 1987.

²¹ *The Dominion* 13 November 1987.

The Coalition thus set out first, to delay the proposed sale of water rights to Electricorp, and second, to lobby for a review of the water right. They embarked on their campaign with great vigour. A range of government ministers were petitioned both by letter and in person, with Helen Clark, the Minister of Conservation and of Tourism, being identified as the most likely ally.²² The Minister acted quickly seeking a stay on the transfer of assets until the water rights issue could be worked out.²³ Electricorp responded by publicly stating that it expected the water right to be transferred to the Corporation – “to assume otherwise is to assume that Electricorp can’t become a state owned enterprise”. They also placed the problem firmly in the government’s lap:

Electricorp had no plans to fight to ensure the water right would be transferred. Without guaranteed water supply the power generating equipment would be useless so it could become the Government’s concern to ensure this supply.²⁴

During this period the Coalition received a wide range of media coverage (almost daily reportage in all the regional papers, plus extensive national coverage), they held a series of well attended public meetings throughout the Whanganui region, and even announced that they were preparing to mount a legal challenge to any transfer. The Forest and Bird national council voted unanimously to broaden the dispute to the national level, and urged NAWASCA to “take all possible steps to prevent the sale of the nation’s water”.²⁵ Clearly the campaign was gaining momentum.

However in mid-December a coincident political claim changed the strategic picture. Earlier in the year the Court of Appeal had ordered the Crown to institute a mechanism which would safeguard existing or foreseeable claims against land and waters transferred to state owned enterprises.²⁶ The Crown quickly acted upon this direction and on 9 December introduced the *Treaty of Waitangi (State Enterprises) Bill*.²⁷ A consequence of this was that the Crown was now unable to transfer to an SOE water rights that had been issued in perpetuity. Yet as the Parliamentary Commissioner for the Environment pointed out, many water rights were already for varied durations, and differed widely in their terms and conditions.²⁸ The Maori Council decision and consequent legislation were not a real solution to a problem that was by no means restricted to the Whanganui. However, they did up the ante against Electricorp and ultimately the government. Furthermore, the Whanganui National Park Management Plan had been released and it advocated not only an increase in minimum flows, but also the restoration of natural flows if possible.²⁹ The Coalition adjusted its sights. Instead of a *review* of the existing water right, it now wanted Electricorp to apply for a *new* water right.³⁰

By this stage the new Corporation was on the defensive and had contracted a public relations firm to devise a strategy for the issue. They identified the media as a problem:

²² Keith Chapple (Chairman of the Whanganui River Flows Coalition), 5 November 1987, Letter to the Minister of Conservation Helen Clark.

²³ *The Daily News* 20 November 1987.

²⁴ Ian Johnstone (North Island Hydro Group Environmental Manager, Electricorp) quoted in *The Dominion* 19 November 1987.

²⁵ *The Dominion* 23 November 1987.

²⁶ *New Zealand Maori Council v Attorney-General* [1987] 1 NZLR 641.

²⁷ *The Dominion* 10 December 1987.

²⁸ *The Dominion Sunday Times* 20 December 1987.

²⁹ *Whanganui Chronicle* 21 December 1987.

³⁰ K. Chapple, May 1988, “Whanganui River Flows Coalition: History” Unpublished paper, p. 4.

The media and the 'publics' they address are ever ready to take up the banner for environmental causes. It has been said that the Tongaririo Power Development (TPD) presents an ideal media opportunity, because not only is it seen as an environmental issue, but also, since the involvement of Electricorp, it has become a case of "big business versus the defenceless wild river". It presents a clearly defined conflict situation, easily headlined and over-simplified, lending itself to heated debate and misinterpretation.

The media should, therefore, be the immediate focus of the campaign because of the key role they play in informing and influencing publics such as local communities, politicians, pressure groups and others.³¹

As they saw it, the solution was to (i) seek more balanced media coverage, (ii) conduct an advertising campaign to improve Electricorp's environmental image, and (iii) to build trust at the local level.³² This was a fairly detached and cynical perspective. There had undoubtedly been some oversimplification of the issues, and the media were particularly responsive to the Coalition's case, but these factors were underpinned by legitimate grievances, and furthermore, the Coalition's campaign had been most effective. Electricorp had been caught by surprise and their handling of the issue in these early stages verged on the inept (although in all fairness they were in the midst of a vast transition process). Most crucially, by seeing the issue as one for the government to resolve they had failed to 'own' what was prospectively going to be their problem.

The Coalition campaign gained increasing momentum through the early months of 1988. In late January they held a media tour of the headwaters area, at which they launched a national petition. This resulted in a large number of articles in the regional and national newspapers.³³ Throughout February there was a vigorous debate in the *Dominion Sunday Times* prompted by a letter from the artist Peter McIntyre who accused Electricorp of manipulation by making a special release of water into the Whakapapa River during the media visit. The Group Environmental Manager, Dr Ian Johnstone, denied this and noted that the release was due to the 1983 regime, which was an "expensive exercise in river management ... a cost that is ultimately borne by the electricity consumer of New Zealand" (in another interview he stated that the loss of the WD water could result in a *doubling* of domestic electricity bills³⁴). This in turn was rebutted by Tom Wells, retired Headmaster of Whanganui Collegiate school, and deputy chairman of the Coalition.³⁵ Elsewhere, the National MP for Waitotara, Venn Young – a former Minister of Lands and Forests, and Environment – threw his weight behind the campaign in a lengthy piece in the *Whanganui Chronicle*.³⁶ This media exposure, plus the continuous public efforts of the Coalition, placed considerable pressure on the Labour Government to accede to the demands. The first concession came on 26 February, when the Associate Minister for the Environment, Philip Woollaston, announced that the existing water rights agreements may not be applicable to the 'business-like' SOEs, and because of this the government would not sell the rights but would instead lease them to the Corporation until a new institutional structure was in

³¹ R. Hickman, and B. Gillespie (Clarity Communications), "Electricorp and the Whanganui River Flows Coalition: An Overview of the Issues and Recommended Communications Strategies" p. 10.

³² *Ibid.*, pp. 10-15.

³³ K. Chapple, May 1988, "Whanganui River Flows Coalition: History" Unpublished paper, p. 5.

³⁴ *Taumarunui Gazette* 1 March 1988.

³⁵ *The Dominion Sunday Times* 7 and 14 February, and 6 March 1988.

³⁶ *Whanganui Chronicle* 2 Feb 1988. And in the following days paper he argued that the River should get the same sort of protection as Lakes Manapouri and Te Anau – by a set of regulatory controls overseen by a body of 'guardians'.

place (i.e. until the resource management law reform process was complete).³⁷ Finally, on 27 March, the Corporation agreed to the Coalition's demands. In its written submission to the minimum flows review it indicated that it would apply for a water right to replace the existing authorisations for the waters of the Whanganui.³⁸

While it was not strictly part of the minimum flows process, the water rights issue was a crucial episode in the minimum flows conflict. Over nine months a group of people from the Taumarunui area had formed an organisation around a clear goal, they had mobilised nation-wide support, engaged the help of key government ministers, severely damaged the public image of the new SOE, and achieved their immediate objective. They had done this with few financial resources, and a *core* organisation of three or four people. The discourse had been largely symbolic and emotive, with virtually no scientific, technical, and economic argument of any substance (and that included the arguments of the Corporation which were equally superficial). These successes must, however, be seen in the context of the contemporaneous concerns and action of Maori with regard to the transfer of resources to the SOEs, and of nation-wide concern about the water rights issue *per se*. However, in the strategic context of the WRMF issue as a whole, the water rights episode had the effect of raising the profile of the issue and demonstrating to government the level of concern about the river – a crucial factor in maintaining the resolve and political will of the government agencies and responsible ministers that subsequently engaged in the dispute.

Lastly, in the final months of the campaign it was becoming clear to the Coalition that the water rights issue was just the beginning, and that the critical decision-making process about the substantive issues would take place within the minimum flow review, and they sought to involve themselves in that process. Discussion now turns to that process which had been progressing contemporaneous with the water rights campaign.

12.2.(ii) *The Minimum Flows Agenda*

Within a year of the 1983 regime being implemented a local river-boat operator, Winston Oliver, began a sustained correspondence with Don Spence (Chief Technical Officer, Rangitikei-Whanganui Catchment Board) about the problems with navigation on the river. Many of his concerns related to issues of channel maintenance and information about flows. However, he also persistently questioned the adequacy of the 1983 regime.³⁹ Although his inquiries were not the sole motivation, they certainly acted as a catalyst in prompting the Board to informally investigate the adequacy of the regime. The central conclusions of this interim review were that the flows had achieved their intended function and that the current procedures should continue. Spence did note, however, that the Board should "advise any parties interested in seeking changes to the existing arrangements, that they should direct their attention to preparing submissions, for whatever process is initiated for setting minimum flows beyond the expiry date of the present arrangements".⁴⁰ It was only months later in early 1987, that the Board

³⁷ K. Chapple, May 1988, "Whanganui River Flows Coalition: History" Unpublished paper, p. 6.

³⁸ *The Dominion* 28 March 1988.

³⁹ He also engaged the services of a lawyer to put his case to the Catchment Board. For example; 9 May 1986, Letter to the Chief Executive Rangitikei-Whanganui Catchment Board.

⁴⁰ Don Spence, August 1986, "Whanganui River Minimum Flows 1983-1986" Report to the Rangitikei-Whanganui Catchment Board.

announced its intentions to conduct a formal review of the flow regime prior to its expiry in October 1988.⁴¹ This was the beginning of the central phase of the dispute.

From the outset the newly formed Department of Conservation took a bold stance on river flows. This was partially a function of its statutory management duties, but because the river itself (the bed and the water) were not actually managed by the Department, the prime motivation or mandate was *vis à vis* its advocacy function. As I noted above, the draft management plan for the Whanganui National Park signalled this position – advocating not only an increase in the minimum flow levels, but also the restoration of natural flows in the river – this was the broad position taken by the Department for the rest of the dispute. Conscious of Spence's injunction to gather evidence, DoC's Whanganui Conservancy was by late 1987 signalling its intention to conduct an extensive research exercise prior to the minimum flow review. The Department put out a request for information about the river system, and began collecting data relating to physical, navigational, ecological, aesthetic/amenity and tourism impacts.⁴² During this period the District Conservator, John Ombler, addressed the early meetings of the Coalition and made it clear that DoC could not, and would not, participate in the water rights campaign, but would instead focus upon the flows review.⁴³ It also moved behind the scenes to coordinate its efforts with the local authorities and other interest groups.⁴⁴

Throughout 1987 the Taumarunui and Whanganui local bodies were also strident in their criticism of the low water levels. While the mayors of both towns pointed to the loss of amenity that resulted from low flows (especially the impact upon tourist revenue), they were also seeking increased flows in order to mitigate the effects of effluent discharges from their respective sewage treatment facilities. Neither council occupied the moral high ground. Furthermore, the Taumarunui Borough Council was also seeking to lever both outstanding compensation payments, and a higher level of future compensation, from the NZED/Electricorp (under the Piriaka agreement).⁴⁵

In December 1987 Don Spence produced a public discussion paper on the minimum flow review. Once more he expressed a desire to open up the review process to all matters having a bearing on the use and management of the River (although the exigencies and complexities of the issue were again to limit the process to a strict consideration of the minimum flows). I include here a passage of Spence's report which captures the essence of the Catchment Board process:

The Water and Soil Conservation Act was intended to ensure that the best is made of the Nation's water resources in the interests of the community as a whole, and to allocate its use between competing interests accordingly. Outside of water conservation orders, where the Courts have now accorded some priority to the protection of the natural characteristics of rivers and lakes, and this is not the case here, no priority is given to any particular use, or the interests of any particular section of the community. Each has to establish what his or its needs are, and how their use, or the protection of it, benefits the community.

Here N.Z. Electricity or now Electricorp, along with the communities of Taumarunui and Whanganui, and every jet boater, canoeist, fisherman and others, whether Maori or Pakeha, are

⁴¹ NWASCA resolved that the Catchment Board carry out a review in which it was to; "(a) report on the experience and acceptability over the last five years of the minimum flows set for the Whanganui River and whether any change is required, and (b) make use of public participation procedures similar to those used for Crown water rights." NWASCA, 7 April 1987, "Review of Minimum Flows Whanganui River" Minutes (submission No. 340.4.87).

⁴² *Daily News* 6 and 10 November 1987.

⁴³ *Taumarunui Gazette* 28 October 1987.

⁴⁴ *Whanganui Chronicle* 17 December 1987.

⁴⁵ *Daily News* 8 March 1987.

all users, and in some cases abusers of the River. None has any privilege, position or priority of use. ...

Inevitably, what is involved are decisions on the extent to which active uses of water, authorised by way of water rights, should be limited or restricted, now and in the future, to minimise or avoid any adverse effects on other users, be they active or passive. That means that what is sought must be capable of being achieved through statutory management mechanisms. Obviously the Benthamite principle of the greatest good for the greatest number has some relevance here, without being the only yardstick to be applied.⁴⁶

This discussion paper was released in 4 February 1988, with a notice calling for submissions to be made before 25 March, and a hearing date scheduled for mid-May. The paper received considerable publicity through a series of five feature articles written by Spence in the *Whanganui Chronicle*.

The limited time frame for submissions caused some consternation amongst both DoC, whose scientific investigations were severely constrained by the time frame, and the Coalition, which had neglected the minimum flows process until the last moment. The Catchment Board rejected the calls for an extension on the deadline. While this forced DoC to curtail elements of its research program, the Department chose (on the basis of legal advice) not to present its written submissions to the Catchment Board until 9 June, when it made a well publicised delivery by canoe of its three volume submission.⁴⁷ The DoC submission had cost the Department approximately \$40,000, and had involved 20 staff plus input from outside consultants.⁴⁸

The Coalition responded to the time constraints by publicly criticising the Catchment Board, and by lobbying central government for an extension. Many of the organisations and individuals within the Coalition made their own written statements in addition to the submission made by the Coalition itself. Few of these submissions incorporated technical or scientific argument of any substance. However, they conveyed a strong message to the Catchment Board about the widespread dissatisfaction with the operation of the WD.⁴⁹

Electricorp was silent during the early months of 1988. The water rights issue had overshadowed the minimum flow review, and the Group Environmental Manager, Dr Ian Johnstone, subsequently admitted that in the early stages they didn't feel it was necessary that the Corporation even make a submission. But after attending a Coalition meeting and discussions in Tokaanu with DoC staff, Johnstone wrote a brief submission on behalf of Electricorp.⁵⁰ However, motivated by the spectre of the DoC research project, this initial submission was soon

⁴⁶ Don Spence, December 1987 (Released February 1988), "Public Discussion Paper: Whanganui River Minimum Flow Review" Rangitikei-Whanganui Catchment Board, Marton. The Long Title of the *Water and Soil Conservation Act 1967* sets out the broad philosophy of balanced use that guided Spence's thinking here:

An Act to promote a national policy in respect of natural water, and to make better provision for the conservation, allocation, use, and quality of natural water, and for promoting soil conservation and preventing damage by flood and erosion, and for promoting and controlling multiple uses of natural water and the drainage of land, and for ensuring that adequate account is taken of the needs of primary and secondary industry, community water supplies, all forms of water-based recreation, fisheries and wildlife habitats, and the preservation and protection of the wild scenic and other natural characteristics of rivers streams and lakes.

⁴⁷ Although the Board did allow DoC to submit additional evidence until mid-April. The Catchment Board defended its intransigence by noting that if a decision were not made by the 31 October (the expiry date for the regime) then Electricorp would be able to take as much water as it wanted. *Daily News* 18 March 1988.

⁴⁸ Much of the work on the submission had been carried out by unemployed university graduates, and university students during the summer vacation. Also, the \$40,000 figure would not have taken into account the labour costs of permanent staff. *Whanganui Chronicle* 19 March 1988, 9 June 1988.

⁴⁹ Rangitikei-Whanganui Catchment Board, 1988, "Submissions on Whanganui River Minimum Flows Review" Collected submissions in single volume.

⁵⁰ Ian Johnstone (Group Environmental Manager, Electricorp), 9 September 1993, Personal Interview, Hamilton.

bolstered by a two volume collection of both in-house analyses of the electricity sector, and consultants' reports about issues such as hydrology, fisheries, tourism, etc.⁵¹

One other group was extremely active in the period prior to the closing date for submissions. The Taumarunui Development and Promotions Association (TDPDA) had distributed standard form submissions requesting the restoration of flows in the river. The TDPDA managed to collect 1187 submissions by the deadline which it presented to the Board in a battered kayak.

The Catchment Board received some 1251 submissions in total. The submissions from DoC and Electricorp stood out in terms of the quality and breadth of investigation, and in a sense the vast majority of the submissions piggy-backed upon their technical arguments. These submissions also had the effect of raising the standards of argument for the Catchment Board hearing and afterwards. Of the total submissions; 288 advocated no diversion of water, 962 submitted that only 20-50 percent of flows should be taken (the vast majority of these submissions were standard forms from the TDPDA campaign), and Electricorp alone argued for the continuance of the 1983 regime.

12.2.(iii) *The Catchment Board Hearing*

The Catchment Board appointed a special Tribunal comprised of four independent members. The Tribunal was to acquaint themselves with the written submissions and then entertain oral submissions in a hearing beginning 8 July. In the period leading up to the hearing the Catchment Board staff undertook the task of collating and summarising the submissions, as well as compiling a technical paper on behalf of the Board itself. The resulting précis was then made available to the public at a cost of \$250 per copy.

This was a period in which community groups also sought to raise the necessary funds to pay for legal counsel (the Board had suggested that such representation would be appropriate⁵²) and expert witnesses. In order to share this cost, the Flows Coalition (which had briefly disbanded following the water rights decision) joined forces with the TDPDA to form the Flows Alliance. The Alliance solicited donations in a public appeal, raised money by such enterprises as selling bottles of river water, and received a \$5000 grant from the Forest and Bird national office towards the projected \$12,500 cost of the hearing. Forest and Bird also engaged the services of Ian Cowper (a member of the Environmental Defence Society which offered either *pro bono publico* or cut rate legal work to selected environmental causes) who would act on behalf of the Society as well as the Flows Alliance.⁵³

During this period Electricorp began to devote more and more resources to the minimum flows issue. A group of Corporation engineers, executives, PR staff (Dr Judith Aitken) and legal counsel (Roydon Somerville and Hillary Talbot), made a well publicised inspection of the area, and stated their intention to have at least 10 people present in Taumarunui for the hearing. Yet despite the Corporation issuing more press releases⁵⁴ they received little coverage in

⁵¹ Ian Johnstone, 23 March 1988, "Whanganui River: Review of Te Maire Minimum Flows, March 1988" Submission by Electricity Corporation of New Zealand.

⁵² *Daily News* 29 April 1988.

⁵³ Gerry McSweeney (Conservation Director, Forest and Bird Protection Society), 16 May 1988, Letter to Keith Chapple.

⁵⁴ Cf. *Daily News* 18 May 1988; *Dominion* 10 June 1988.

comparison to the daily newspaper reports about the activities and arguments of DoC and the Flows Alliance.

Three of the Tribunal members were chosen because of their expertise and experience with the management of water resources, and the fourth member (Harawiri Gardiner) was ostensibly chosen to represent 'special interests', but in essence was there to represent Maori.⁵⁵ The terms of inquiry were ultimately those set out in S. 20 J of the *Water Act*,⁵⁶ which had replaced S.14 (3)(o) following the abolition of NWASCA. The substance of S.20 J was effectively the same as the old section. It read:

The Board may from time to time, after consultation with representatives of all interested bodies, and persons known to the Board, fix ... the minimum acceptable flow and minimum standard of quality of the natural water of any river or stream,

One crucial addition made by the 1988 amendments was the establishment of a right of appeal to the Planning Tribunal against a judgement made under S. 20 J.

The fixing of such a minimum flow, as I have noted previously, was to be made pursuant to the principles of the *Water Act*, which could simply be described as an enjoinder towards balanced use. This 'balancing' process had in the past applied to much planning legislation, with no decision rule – such as an ecological bottom line – being privileged above any other. The procedures set out for the hearing were also flexible; evidence was not required to be given under oath, lawyers were permitted but they were not allowed to cross examine witnesses, evidence was taken as read and so oral submissions were restricted to synopses and the elucidation of key points, and each party was restricted to one spokesperson (other than their expert witnesses).⁵⁷ These guidelines enabled the hearing to be conducted over the relatively brief period of seven sitting days. The Catchment Board hearing was held in the Taumarunui between 8 and 30 July, the Tribunal sat for six days in the District Courthouse and, later, one day on the Ngapuwaiwaha Marae, as well as field excursions by helicopter and jet boat to various parts of the river system. During this time they heard the evidence of 76 witnesses called by 16 parties.⁵⁸ Most of this period was taken up by the DoC, Electricorp and Whanganui Maori Trust Board submissions. In Chapter Eleven I described the main elements of the parties arguments, but it is useful to identify some of the central positions taken in the hearing.

The Department of Conservation was resolute in its advocacy of the return of natural flows to the river. This was its *baseline* approach. The District Conservator, John Ombler, had commented "if the waters are not put back the river remains sick",⁵⁹ and the foreword of the DoC submission described the Whanganui River as "like an amputee and shadow of its former self".⁶⁰ In the hearing DoC's senior counsel Jim Guthrie requested 100 percent flows at Te

⁵⁵ The tribunal members were: Malcolm Conway, a former Director General of the New Zealand Forest Service and former Chairman of NWASCA; Peter Simons, retired General Manager of the Hawke's Bay Catchment Board and former Chief Engineer for the Rangitikei Board; Dr Neil Algar, a medical practitioner, former Mayor of Matamata, and member of NWASCA 1973-88; and Harawiri Gardiner, a former Lt. Colonel and then Advisor to the Minister of Maori Affairs. *Whanganui Chronicle* 18 May 1988.

⁵⁶ As inserted by S. 18 of the *Water and Soil Conservation Amendment Act 1988*.

⁵⁷ *Daily News* 19 May 1988.

⁵⁸ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 9.

⁵⁹ *Whanganui Chronicle* 19 June 1988.

⁶⁰ Jeff Connell (Regional Conservator, Whanganui Region), In: Department of Conservation, May 1988, "Whanganui River Minimum Flows Submission Vol. 1 – Submission to the Rangitikei-Whanganui Catchment Board" Whanganui Conservancy.

Maire. The Department's stance towards Electricorp's interests was simply that "the Tongariro scheme, the capital invested in it and the value of water abstracted by it were all matters of little weight".⁶¹ The only compromise position of any sort put by DoC was the option of returning all flows to the river in the short term, thereby allowing the river to attain some sort of natural equilibrium, and then to try diverting as much water as possible without substantially affecting that ecological balance.⁶² This seemingly intransigent position stimulated considerable criticism. First of all the Department came under attack from the parliamentary opposition. National Party MP and spokesman for Conservation, Roger McClay, criticised the Department's position as "unrealistic" and "ill-conceived" and argued that the Whanganui Conservancy should be "brought to heel".⁶³ Secondly, and most pertinently in the context of the analytical framework, DoC's position caused rumblings at the heart of government administration – within the Treasury. The Treasury had a number of concerns which it expressed in a report to the Finance Minister:

1. What authority did DoC have to undertake the report?;
2. Were Ministers aware of the submissions existence prior to media reports?;
3. Does the submission reflect a Crown position and if not, which agency has the responsibility for reporting to Ministers?; and
4. Should the Crown publicly express a single or potentially multiple view on this issue, and conservation issues in general?

It seems, however, that the motivating factor for the Treasury on this issue was Electricorp's assertion that the loss of the Western Diversion flows would reduce national wealth by \$300 million in net present value terms (as it turned out this was a greatly inflated estimate).⁶⁴ Implicit in the Treasury report was the desire to water-down or constrain DoC's advocacy role, as well as limit the transparency of public processes such as the Catchment Board hearing (where a number of state or peri-state interests were in open conflict). However, irrespective of Treasury's discomfiture, the Minister of Conservation Helen Clark supported the Department's stance. Finally, the Department's uncompromising position must be seen with hindsight as a strategic move. The Chairman of the Tribunal, Malcolm Conway, told DoC's counsel that "practical decisions" would be made on the Western Diversion issue.⁶⁵ But, as I note below, the ultimate compromise position did not disappoint the Department – its approach had been to advocate a strong case within an overarching balancing process. Both the Flows Alliance and Forest and Bird essentially supported DoC's position.

Prior to the Catchment Board hearing Whanganui Maori had been virtually silent on the issue of river flows. This was the first time that Te Atahau-nui-a-Paparangi had presented their case under the umbrella of the Whanganui River Maori Trust Board.⁶⁶ The Trust Board's written submission had simply signalled its intention to appear at the hearing. Yet once the hearing commenced it was clear that the Trust Board was going to play a central role in the dispute. Like DoC, the Trust Board called for the natural flows to be restored to the river, but in addition to this they saw the hearings as an opportunity to air grievances about the history of the

⁶¹ *Evening Post* 12 July 1988.

⁶² *Whanganui Chronicle* 19 June 1988.

⁶³ *Daily News* 18 June 1988.

⁶⁴ D. Andrew (for the Secretary to the Treasury), 20 July 1988, "Water Rights – Whanganui River" Report to the Minister of Finance, Treasury, p. 1.

⁶⁵ *Whanganui Chronicle* 13 July 1988.

⁶⁶ The Trust Board was established by the *Whanganui River Maori Trust Board Act 1988* for the purposes of administering the resources of the river tribes.

TPD and the wider control of the river, and to demand inclusion in future decision-making. A large number of people from the river tribes attended the hearing at the Ngapuwaiwaha Marae.⁶⁷

Electricorp also took a firm position during the hearing. As I noted above they advocated the continuation of the 1983 regime. Where DoC had painted a bleak picture about *decreased* flows, Electricorp exaggerated the costs of *increased* river levels. Electricorp listed; the cost of constructing the TPD (\$48 m), the cost of replacing the WD alone (\$250-550 m), and an estimated the NPV of the loss of all diversion flows as \$300 m. They also greatly over-emphasised consequent price rises. However, these arguments were fairly manipulative, for as I argued in the previous chapter, the Corporation itself treated such costs as sunk, the NPV of the WD water was more realistically in the region of \$225 m (dependent, of course, on the discount rate used), and also, the price rise argument could not be sustained. One matter that did arise with respect to Electricorp's conduct within the hearing was with regard to a DoC witness. A Works Consultancy scientist, Jim Dahm, who had prepared evidence for DoC on the issues of hydrology and sedimentation, withdrew his services at the last moment because of Electricorp pressure. Electricorp had contracted the services of other Works staff in the preparation of its own submission, and claimed that there was a conflict of interest.⁶⁸ However, DoC's use of Mr Dahm would have contravened no legal or administrative principle (there being no property in a witness) and could only be construed as blatant exercise of the Corporation's influence.⁶⁹

12.2.(iv) Outcome

Following the hearing the Tribunal embarked on the process of analysing and weighing the evidence, and dealing with the technical questions involved in prescribing and implementing a flow regime to satisfy their chosen ends.⁷⁰ The complexity and scale of this task meant that it was late September before they reported to the Catchment Board, and 18 October before the Board made a decision. In the interim period the Treasury report had been leaked to the media (Treasury subsequently turned down an Official Information Act request for the document⁷¹) and a series of media reports ensued in which Keith Chapple suggested Treasury may seek to influence the Catchment Board.⁷² There is no evidence to suggest that any such influence was exercised, and this is most apparent in the substance of the Boards decision, which was as follows:

That pursuant to Section 20 J of the Water and Soil Conservation Act 1967:

1. The minimum acceptable flow of the Whanganui River immediately downstream of the Tongariro Power Development Western Diversion Intake be fixed at 100% of the natural flow.
2. The minimum acceptable flow of the Whakapapa as measured at the footbridge recording site be fixed at 8.5 cumecs for the period 1 December to 30 April and 4.2 cumecs for the balance of the year, subject to such flows being naturally available. ...
3. This flow regime remain in place for five years expiring on 31 October 1993.

⁶⁷ *Whanganui Chronicle* 1 August 1988.

⁶⁸ *Daily News* 12 July 1998; *Whanganui Chronicle* 12 July 1988.

⁶⁹ Indeed, the scientist's summary termination of his contract with DoC was potentially actionable in the law.

⁷⁰ *Taumarunui Gazette* 6 September 1988.

⁷¹ This request was made by Dr Gerry McSweeney, the Conservation Director of Forest and Bird, to the Secretary for the Treasury. *Whanganui Chronicle* 15 September 1988.

⁷² *Taumarunui Gazette* 6 September 1988; *Daily News* 15 September 1988; *Whanganui Chronicle* 15 September.

The decision also made provision for Electricorp to seek lower minimum flows in the event of a national power shortage. But the Board's resolution went beyond the specification of minimum flows to include two other points. The first was that consideration would be given to the wider issues raised by Maori during the hearings. Once it had consulted with Maori and identified their concerns, the Board undertook to refer those questions to an appropriate authority. The second point was that the Board recommended that the Commissioner for the Environment, under S.16 (f) and (g) of the *Environment Act 1986*, promote energy conservation as an important facet of resource management.⁷³ The parties had 28 days to appeal the decision to the Planning Tribunal.

Consideration of the flow regime may, in the first instance, focus upon two elements. The first is the change in water volumes, and the second relates to which particular headwater flows are modified. With regard to the first indicator, the Catchment Board decision reduced the annual diversion out-flows by approximately a third. In terms of the second, the Planning Tribunal observed that the intent of the Catchment Board's regime was:

That the intake on the Whanganui River for the Western Diversion would be closed, so that the natural flows there would be restored; that the diversion from the Whakapapa River would be controlled to achieve the minimum flows specified; and that the diversions from the other four tributaries of the Whanganui River would continue.⁷⁴

In broad terms this focus upon the upper reaches of the river – to a great extent the Whakapapa – represented a substantial shift in emphasis from the 1983 regime which centred upon the middle reaches below Te Maire. I will discuss here the reactions of the main actors to this decision.

Electricorp's response was initially one of disbelief, before rapidly assuming a more bellicose position. The decision was perceived within the Corporation as a disaster, and its spokespeople did not hesitate to convey this impression to the media.⁷⁵ They asserted that: the increased minimum flow levels represented a mean loss of 50 percent of the diversion flows⁷⁶; this would cut North Island hydro output by a quarter; the cost of the decision alone amounted to \$17 m a year⁷⁷; the lost water would have an NPV of \$80 m; this would cost consumers hundreds of millions of dollars in the future; and it would add \$100 a year to the average power bill.⁷⁸ Furthermore, Electricorp's Chairman, John Fernyhough, was worried that the decision would set a precedent, that would subsequently lead to a gradual erosion of the water resources available for hydro-generation at a national level:

At the end of the day it is not the interests of any small group or minority that have got to be brought to bear. It is the decision of the community as a whole which has to balance, on the one hand, the interests of minorities, [and] on the other hand the cost to the country as a whole. And that's the decision-making procedure that's got to prevail. Otherwise what'll happen is that slowly over a period of time each of these decisions will be made on a local basis where the costs will accumulate and one day we'll realise, as New Zealanders, that we've totally shot ourselves in the foot.⁷⁹

⁷³ M. Holland (Director of Resources, Central Districts Catchment Board), 19 October 1988, Letter to Dr Roger Blakeley, Secretary for the Environment.

⁷⁴ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 9.

⁷⁵ Ian Johnstone (Group Environmental Manager, Electricorp), 9 September 1993, Personal Interview, Hamilton.

⁷⁶ *Evening Post* 19 October 1988.

⁷⁷ *New Zealand Herald* 20 October 1988.

⁷⁸ John Fernyhough (Chairman, Electricorp), 19 October 1988, Interviewed in Television New Zealand 6 pm News Bulletin.

⁷⁹ John Fernyhough, 20 October 1988, Interview on Radio New Zealand "Morning Report", Newztel Log.

The Chief Executive of Electricorp similarly stated "the national interest was not represented".⁸⁰ As I noted in the previous chapter, this was a core element of the Corporation's case. However, although many of the participants in the hearing had put forward arguments based on local interests, the conservation, recreation and Maori arguments could equally be viewed as national concerns.

But while the Catchment Board decision did indeed represent a significant cost to the Corporation, their public estimates were substantially exaggerated. A thorough analysis would reveal that: the loss of water amounted to 32 percent of mean diversion flows rather than the widely quoted 50 percent;⁸¹ that would be about 210 Gwh out of the total 7590 Gwh generated by North Island hydro in 1988/9 – about 3 percent instead of 25;⁸² the average annual cost would be expected to be \$5.9 m and not \$17 m; the NPV approximately \$72 m (although \$80 m was not an unreasonable estimate);⁸³ the suggestion that it represented hundreds of millions of dollars in future costs had no substance; and, the increase to the average household electricity bill would amount to only \$5.30 per annum.⁸⁴ Regardless of these tactical exaggerations, the real underlying costs of the decision represented a considerable loss of revenue for Electricorp. The Corporation's return on its assets had been a paltry 3.7 percent in 1988,⁸⁵ and the loss of profitable intra-marginal capacity was judged to be unacceptable.⁸⁶ Electricorp swiftly lodged an appeal to the Planning Tribunal.

The media portrayed the Coalition/Alliance's immediate reaction to the decision as a negative one. A front page article in the *Dominion* quoted Keith Chapple as saying the decision was merely "tokenism", and that while the closure of the Whanganui intake was a progressive move, the effect on the remainder of the intakes was unacceptable.⁸⁷ Chapple's comments were then quoted elsewhere.⁸⁸ These negative remarks caused some annoyance amongst the ranks of conservationists, many of whom were extremely pleased with the decision. However, it seems that his remarks had been taken out of context, much to Chapple's chagrin.⁸⁹ The grass roots activists had indeed wished for a better result, but on reflection they too realised that they had achieved a remarkable victory. The Forest and Bird national office portrayed the decision as a huge success.⁹⁰ Various conservation organisations then went on the offensive in an effort to counter Electricorp's response. On one level, Chapple, Gerard Hutching (Forest and Bird's national spokesman), and the energy campaigner Molly Melhuish, set out to expose the

⁸⁰ Dr Roderick Deane (Chief Executive, Electricorp), 17 December 1988, Interview on Radio New Zealand, Newztel Log.

⁸¹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 165.

⁸² *Ibid.*, pp. 141, 145.

⁸³ *Ibid.*, pp. 164-5.

⁸⁴ Molly Melhuish (Energy Researcher), 21 October 1988, Interview on Radio New Zealand "Morning Report", Newztel Log.

⁸⁵ After tax and extraordinary expenses. Electricity Corporation of New Zealand, 1992/3, *Annual Report* p. 28.

⁸⁶ Indeed at this time the Corporation had embarked on an aggressive marketing and public relations campaign.

⁸⁷ *Dominion* 19 October 1988.

⁸⁸ *New Zealand Herald* 20 October 1988.

⁸⁹ Keith Chapple, 14 November 1989, Letter to Gerard Hutching (Forest and Bird).

⁹⁰ Gerard Hutching (Spokesman, Forest and Bird), 19 October 1988, Press Release "Whanganui Decision Welcomed"; Dr Gerry McSweeney (Conservation Director, Forest and Bird), 20 October 1988, Letter to Keith Chapple.

inaccuracies in Electricorp's estimates of cost (see above). On another level they sought to dissuade Electricorp from its appeal, by selling the decision as a balanced and reasonable one.⁹¹ Direct tactics were also utilised. For example, in the November edition of *Conservation News* (which went out to 50,000 Forest and Bird members), the Society urged its members to write to the Chairman of Electricorp at his home address, urging the Corporation to drop the appeal.⁹² This action was to later result in allegations of contempt of court against the conservationists.

The immediate reactions of DoC and its Minister, Helen Clark, were extremely positive. In Whanganui the District Conservator John Ombler welcomed the decision, noting that it would have positive effects on both the ecology and recreation possibilities.⁹³ Helen Clark issued a press statement that listed the various benefits of the decision. She did note that the new regime would by no means restore the river to its natural state – for example, the periphyton problem would most probably persist in the Whakapapa because the levels of sand fines in the river would not increase.⁹⁴ Nevertheless the Department's approach was a pragmatic one, as they saw the decision as a best possible solution in a context of competing uses.

In their report to the Catchment Board the Catchment Board Tribunal wrote that they were concerned that the river tribes had not been properly consulted and their special relationship with the river had not been given due consideration. It was for this reason that they recommended the restoration of the natural flow to the upper-Whanganui.⁹⁵ This procedural and substantive regard for the values and concerns of Te Atihau-nui-a-Paparangi was warmly received by the Whanganui Maori Trust Board. In a press release the Trust Board Chairman, Archie Tairaroa, wrote:

It's the first time the Maori people have been listened to and consideration given to some of their grievances as regards to the Whanganui River. Its recommendations is [Sic.] a good start I hope, towards continuing consultation, co-operation and partnership We want a fair bit of say in it all.

And later:

The Trust Board spent a lot of money on making its submissions to the Hearing and will continue to fight should this matter go to Appeal. We hope that co-operation, continual consultation and partnership would not necessitate that.⁹⁶

The Trust Board's resolve was soon to be tested.

To conclude, in comparison to the 1983 establishment process, the 1988 review (and I include here the concomitant water rights issue) was more politicised, focused upon different substantive questions which were also more complex and wide-ranging, involved more structured 'quasi-judicial' decision-making as well as political discourse, and consisted of a matrix of disparate expectations. The impetus of the conflict was a product of the routine administrative review (to a degree stimulated by the persistent inquiries of Winston Oliver) coinciding with: (i) A period of heightened environmental/ecological consciousness and politics

⁹¹ For example: Molly Melhuish (Energy Researcher), 21 October 1988, Interview on Radio New Zealand "Morning Report", Newztel Log; Gerard Hutching (Spokesman, Forest and Bird), 20 October 1988, Interview on Radio New Zealand "Morning Report"; Molly Melhuish, October 1988, "Whanganui River Decision: Trifling Impact on Power Bills" *ECO Newsletter* p. 9; *Evening Post* 21 October 1988.

⁹² The Editor, November 1988, *Conservation News* No. 48.

⁹³ *Dominion* 19 October 1988.

⁹⁴ Helen Clark (Minister of Conservation), 18 October 1988, Press Statement.

⁹⁵ Rangitikei-Whanganui Catchment Board and Regional Water Board, September 1988, "Whanganui River Minimum Flow Review: Report and Recommendations of the Tribunal" Rangitikei-Whanganui Catchment Board, Marton.

⁹⁶ Archie Tairaroa (Chairman, Whanganui River Maori Trust Board), 18 October 1988, Press Statement.

at the national level;⁹⁷ (ii) Widespread government restructuring. The dis-establishment of the NZED and the creation of Electricorp were of crucial contextual significance in the water rights issue, which in turn politicised the minimum flows review. The recent creation of the Department of Conservation with a clear statutory duty to manage and advocate for conservation values meant that the Whanganui Conservancy staff were highly motivated and eager to test their mandate.⁹⁸ Also, the aggressive regionalism of groups such as the TDPDA was in great part spurred by economic restructuring – for example, the loss of agricultural subsidies, and in public service jobs such as the New Zealand Railways – which had depressed rural service centres such as Taumarunui;⁹⁹ And (iii) the increased cohesion and political strength of Whanganui Maori under the umbrella of the newly formed Whanganui River Maori Trust Board. I am hesitant to describe this as a Maori renaissance, because Maori in the region had never stopped fighting for control of the river. However, the Treaty claims process had empowered the tribes and increased expectations, and this energy was turned towards the minimum flow review.

While the dispute proceeded on a far wider scale than previously, and without diminishing the efforts of the many people who took part, it was greatly influenced by certain key individuals. Don Spence was again pivotal in determining at an early stage the institutional form of the decision-making process (insofar as the *Water Act* did not set out a specific process). Keith Chapple's remarkable energy, tenacity and advocacy skills were vital in driving the Coalition, and later the Alliance, campaigns.¹⁰⁰ DoC's District Conservator, John Ombler, remained deeply committed to the issue despite public criticism. Electricorp's spokesman, Dr Ian Johnstone, was to a degree responsible for the Corporation's uneven and fraught management of the issue prior to the hearing.¹⁰¹ While many others played important parts in the conflict these individuals were pivotal in shaping the character and path of the dispute.

The substantive content of the dispute also differed greatly. The discourse widened, and while the recreational values of the middle reaches still figured prominently, the ecological and Maori dimensions were now of fundamental importance. There was also a shift in emphasis towards the upper reaches (reflected in the decision). This was partly a function of the ecological effects that were present in the areas of greatest hydrological disturbance. But it was also a due to the advocacy of Chapple and his cohorts from the Taumarunui region. The values became more diverse and extreme thereby raising the stakes, and their articulation, substantiation and scrutinisation became more complex, and often technical and scientific.

Finally, the process of decision-making involved vigorous grass roots politics and lobbying activity during the water rights issue, and a more structured mix of democratic input and, as I noted above, quasi-judicial, procedure in the flow review. Furthermore, this decision-

⁹⁷ T. Bührs, and R. Bartlett, 1993, *Environmental Policy in New Zealand: The Politics of Clean and Green?* Oxford University Press, Auckland, Ch. 3.

⁹⁸ John Ombler (District Conservator, Whanganui), 27 July 1998, Personal Interview, Wellington.

⁹⁹ Tom Wells, 1988, Submission on behalf of the Flows Alliance, Catchment Board hearing.

¹⁰⁰ Chapple and his wife Brenda received Forest and Bird's 'Old Blue' award for their efforts.

¹⁰¹ Although to be fair, he was previously unaware of the legacy of discontent left by the NZED – especially regarding Maori. He also pointed out that there was little institutional knowledge within the Corporation as to how to go about dealing with processes of environmental conflict. Ian Johnstone (Group Environmental Manager, Electricorp), 9 September 1993, Personal Interview, Hamilton. I would like to add here that given the NZED's experiences with issues such as the Manapouri and Clyde hydro-disputes, one would expect there to have been some institutional knowledge on such matters.

making process was located wholly within the region itself (whereas in 1983 Nwasca had the ultimate say).

12.3. The 1989 Planning Tribunal Appeals

The second phase of the review process was the Planning Tribunal appeals that followed the Catchment Board decision. Once again the ante was raised. However this time it wasn't the substantive claims that changed so much as the transaction costs of conflict, which grew exponentially with the transition to a wholly juridical decision process. The Planning Tribunal was to sit for 84 days in the period between 4 September 1989 and 18 May 1990. The testimony of 105 witnesses was heard. Much of this evidence was new, and a great deal of it was highly specialised and recondite. The hearing also involved expansive legal argument. It is not surprising then that this turned out to be one of the most, if not the most costly resource management case in New Zealand's history.¹⁰²

12.3.(i) *The Pre-Hearing Period*

Within weeks of the Catchment Board decision, Electricorp lodged an appeal to the Planning Tribunal pursuant to S's 20 J and 25 of the *Water Act*. The essence of its argument was that the Catchment Board (the Respondent) had exceeded its jurisdiction. The Corporation ultimately sought the continuation of the 1983 regime (and an award of costs). They also noted that while the term of the 1983 regime had expired they would voluntarily adhere to the same minimum flow levels for the duration of the appeals process.¹⁰³ Concomitant with the appeal notice, the Corporation sought to justify its actions in the national media.¹⁰⁴

As they had promised, the Trust Board counter-appealed as a strategic response to Electricorp's actions. The Trust Board listed five main grounds of appeal, which focused upon the affront to their traditional values posed by *any* diversion of water, and upon the question of control over the river.¹⁰⁵ No other parties appealed, but it was inevitable that those such as DoC, the Coalition, and local bodies, would at least seek to be heard in any subsequent hearing.

The Coalition's response to the appeals was twofold. First of all they would undertake a public campaign similar to the one they had waged on the water rights issue. They would urge the Corporation to both withdraw the appeal and to immediately implement the Catchment Board regime. Secondly, they would again seek the assistance of legal counsel and begin the process of compiling additional evidence in case the appeal proceeded.¹⁰⁶ The one action that was undertaken over the Christmas period was the letter writing initiative that I mentioned earlier. The national President of Forest and Bird, Professor Alan Mark, wrote to John Fernyhough on behalf of the Society as a whole (invoking the 'good corporate citizen' clause of the SOE Act), and the membership were urged to write individually.¹⁰⁷ I mention this action again because it

¹⁰² I refer here to the procedural costs of conflict rather than the substantive implications.

¹⁰³ *Ibid.*

¹⁰⁴ For example, the Chief Executive was interviewed at length on National Radio. Dr Roderick Deane (Chief Executive, Electricorp), 17 December 1988, Interview on Radio New Zealand, Newztel Log.

¹⁰⁵ The Whanganui River Maori Trust Board, 18 November 1988, Notice of Appeal.

¹⁰⁶ Keith Chapple (In capacity as Chairman of the King Country Branch, Forest and Bird), 14 November 1988, Letter to Gerard Hutching (National Office, Forest and Bird).

¹⁰⁷ Professor Alan Mark (President, Forest and Bird), 21 December 1988, Letter to John Fernyhough.

incited a response from Electricorp that changed the character of the conflict environment and process.

In early January 1989 there was a brief public exchange between Forest and Bird and Electricorp. The Society issued a press release that, inter alia, described the Catchment Board decision as balanced and fair, dismissed Electricorp's costings as scaremongering, and once again urged them to withdraw their appeal.¹⁰⁸ This time Electricorp vigorously defended its decision – "the Corporation would be failing power users if it didn't appeal".¹⁰⁹ Behind the scenes Electricorp's lawyers protested to the Principal Planning Judge (David Sheppard), arguing that the conservationists' remarks (and lobbying of the Chairman) were likely to inhibit the Corporation from pursuing its appeal. An irate Judge Sheppard warned the Society that by pre-empting the due consideration of the Tribunal they were in contempt. Forest and Bird were forced to make a public display of contrition, by apologising to the Tribunal directly, and by making a public retraction of their remarks.¹¹⁰ The realisation that the issue was now *sub judice* transformed the pattern of conflict. While the PR battle continued, public statements became more obtuse and less direct. Moreover, there was little chance that Electricorp would diverge from its course of action, and so the imperative upon all opponents was to be as prepared as possible for the Planning Tribunal hearing.

The Coalition's immediate task was to raise money for the Tribunal case. Once again they solicited donations and conducted various fundraising activities in the Whanganui region.¹¹¹ They also made a (well publicised) approach to the Minister of State Owned Enterprises, Stan Rodger, arguing that if Electricorp were to have access to virtually unlimited funds for its legal case, then to ensure some equity in the matter it was fair and reasonable that the community groups receive some contribution. The Coalition initially requested \$30,000 but later reduced the sum to \$7,500 because Forest and Bird said they would cover some of the Coalition's expenses.¹¹² Stan Rodger turned down the appeal (even if he had wanted to there was no applicable mechanism to give such support), and suggested instead that the community representatives petition DoC for some money. This was, however, not only inappropriate (as the Department was devoting as many resources as possible to the same case) but also unlikely given DoC's perennial funding problems.¹¹³ The Coalition did eventually receive a sum of \$13,000 from the Taumarunui Borough Council (ironically the money came from a fund built up from NZED and Electricorp compensation payments made under the Piriaka agreement).¹¹⁴

¹⁰⁸ Dr Gerry McSweeney (Conservation Director, Forest and Bird), 10 January 1989, Press Release "Electricorp Challenged to Return Headwaters to Whanganui River"; *Whanganui Chronicle* 11 January 1988; *Evening Post* 11 January 1988; *Dominion* 12 January 1989.

¹⁰⁹ National Radio, 11 January 1989, 6 pm News Bulletin, Newztel Log; *Dominion* 13 January 1989; *Whanganui Chronicle* 13 January 1989; *Evening Post* 13 January 1989.

¹¹⁰ Ian Cowper (Counsel for Forest and Bird), 20 January 1989, Letter to the Chief Planning Judge; Ian Cowper, 14 March 1989, Letter to Dr Gerry McSweeney.

¹¹¹ *Daily News* 12 May 1989; *Ruapehu Press* 16 May 1989.

¹¹² Keith Chapple, 13 January 1989, Letter to the Minister of State Owned Enterprises; *Whanganui Chronicle* 14 March 1989.

¹¹³ *Whanganui Chronicle* 6 April 1989; *Daily News* 7 April 1989.

¹¹⁴ Keith Chapple, 20 September 1993, Personal Interview, Kakahi. The Coalition also raised \$10,000 in a radio appeal in June, plus donations from Forest and Bird and other organisations and individuals. *Daily News* 16 June 1989.

The other organisation with funding problems during this period was the Catchment Board which as Respondent in the appeal had no choice but to be represented throughout the hearing. The Board had already expended considerable resources on the issue and any further costs would pose a huge burden on the organisation, forcing it to divert funds from its operational budgets. The Board repeatedly applied to the Ministry for the Environment for special funding – one of its grounds being that the issue was generally considered to be a matter of national importance and such decisions had traditionally been funded by central government.¹¹⁵ The request was unsuccessful.¹¹⁶

On 10 April there was a pre-hearing conference held between Judge Sheppard and the parties to the appeal (appellants, respondent, and those other parties who wished to be heard¹¹⁷). The purpose of the conference was to ascertain the level of involvement of each party, and to make arrangements for a hearing. Through the discussion it transpired that Electricorp would be calling over 40 witnesses, while the Minister of Conservation intended to call over 20 witnesses. Indeed a total of 80 witnesses were predicted at that stage. Furthermore, it was anticipated that the hearing would be of eight to ten weeks duration.¹¹⁸

This encounter had a profound effect on the conservationists. The prime impression that emerged from the meeting was the sheer scope and scale of the impending hearing. Moreover, the vast resources that Electricorp was now devoting to the issue were for the first time readily apparent. Following the conference Chapple, Forest and Bird's Counsel, and the DoC representatives all retired to the DoC offices. It was at this point that Forest and Bird decided to withdraw from the proceedings. The Coalition would continue its involvement, with Chapple acting as a lay advocate in the proceedings ("a daunting prospect"¹¹⁹). A natural division of labour emerged, with DoC conducting the bulk of the conservation argument, and the Coalition putting forward the regional perspective.

Forest and Bird withdrew from the hearing for a number of reasons. The first of which was the expected cost of participation, estimated to be at the very least \$100,000 (even taking into account the discounted legal costs).¹²⁰ The possibility that it could cost more was indicated by an Electricorp official who told Dr McSweeney that the Corporation would pursue the case all

¹¹⁵ R. Barrett (General Manager, Central Districts Catchment Boards), 21 July 1989, Letter to Dr Roger Blakeley, Secretary for the Environment.

¹¹⁶ John Gallen (Office Solicitor, Ministry for the Environment), 15 August 1989, Letter to Director of Resources, Central Districts Catchment Boards. Also; *Whanganui Chronicle* 16 August 1989.

¹¹⁷ Parties such as DoC, the Coalition, Winston Oliver and the Councils gained their standing by virtue of having appeared at the first instance hearing. Pursuant to S. 25 of the *Water Act*.

¹¹⁸ Ian Cowper (Counsel for Forest and Bird), 11 April 1989, Letter to Dr Gerry McSweeney. One of the more contentious issues in this meeting was the application made by the Whanganui River Maori Trust Board to be heard on a marae. Judge Sheppard displayed some concern about the problems of control and process. The Planning Tribunal would be unwilling to divest itself of any control over the proceedings, cross-examination would have to remain despite Maori objections, and while the Tribunal had no problems with evidence being given in Maori there would still have to be a written document in English that accurately depicted the same evidence. Bronwyn Arthur (Counsel for Minister for the Environment), 11 April 1989, Internal Memorandum, Ministry for the Environment.

¹¹⁹ Keith Chapple, 16 April 1989, Letter to Dr Gerry McSweeney.

¹²⁰ It had earlier been rumoured that Electricorp had allocated \$1 m to conduct its case. This was later to prove to be a very conservative estimate. Tom Wells (Deputy Chairman, Whanganui River Minimum Flows Coalition), 13 January 1989, Press Release "Electricorp Extravagance Continues".

the way using maximum resources.¹²¹ The second was that Forest and Bird's substantive concerns were essentially the same as DoC's, and furthermore, DoC was open to the possibility of broadening its case to accommodate any specific ecological issues raised by the Society.¹²² Thirdly, there had been some unease within the Society about the appropriateness of opposing hydro production when the probable alternative was the use of fossil fuels (although not necessarily so) – and the Society may have had some difficulty justifying to its membership such a relatively large expenditure on an issue that was not (mistakenly perceived to be) unequivocally or totally beneficial to the environment.¹²³ Forest and Bird's decision to withdraw received extensive media coverage. The Society's press release listed costs as the foremost consideration, and went even further to argue that this was setting a bad precedent.¹²⁴ The costs issue was taken up by the parliamentary opposition – the National Party spokesman for conservation, Dennis Marshall, stated:

Huge taxpayer funded monopolies such as Electricorp have access to unlimited resources. They are putting up over 40 witnesses to the tribunal hearing on the Whanganui River and can afford to pay for expensive lawyers for unlimited time. It was not surprising the [Society] has to withdraw when a proper defence would have cost over \$100,000.¹²⁵

Once again Keith Chapple was pulling strings behind the scenes in his PR battle against the Corporation.¹²⁶

In the months prior to the commencement of the hearing most of the activity was behind the scenes. Legal cases were developed, research undertaken and briefs of evidence written. It was a period of great industry. It was also characterised by a succession of turf wars, and episodes of personal conflict. I will mention three particular issues/episodes that happened during this period. The first was the problem of putting forward the Crown's perspective on energy policy. The Minister of Conservation and Electricorp both signalled their desire to have Ministry of Energy personnel appear as witnesses for their respective cases. However, the Minister of Energy (David Butcher) refused this request, which meant that his officials would have to be subpoenaed (a process which really signified that the Ministry did not want appear either partisan or fractured). From the wider perspective of the Crown this was an unsatisfactory

¹²¹ When, following the Frontline Documentary on the issue (see next section), Judge Sheppard had it brought to his attention that Forest and Bird might have withdrawn from proceedings because of intimidation by Electricorp, he made a considerable effort to clarify this point with the Society. However Dr McSweeney made it clear to the judge that it had not been a matter of 'improper influence' but rather 'inequality' of resources, and that the Society had "freely withdrawn from the proceedings, albeit with some reluctance". Ian Cowper (Forest and Bird Counsel), 20 March 1990, Letter to Registrar Planning Tribunal. Also; Dr Gerry McSweeney, 2 March 1990, Letter to Ian Cowper.

¹²² Ian Cowper (Counsel for Forest and Bird), 11 April 1989, Letter to Dr Gerry McSweeney.

¹²³ Although these concerns were dismissed by the Conservation Director, Dr Gerry McSweeney. Bernard Chivers (Sec./Treasurer, Mid-North Branch of Forest and Bird), 15 January 1989, Letter to the National Secretary Forest and Bird; Dr Gerry McSweeney (Conservation Director, Forest and Bird), 1 February 1989, Letter to Bernard Chivers.

¹²⁴ Dr Gerry McSweeney (Conservation Director, Forest and Bird), 27 April 1989, Press Release "Society Withdraws from Whanganui River Hearing"; Also *Conservation News* April 1989.

¹²⁵ *National Business Review* 1 May 1989.

¹²⁶ McSweeney's statements had been made at Chapple's behest. Keith Chapple, 16 April 1989, Letter to Dr Gerry McSweeney. While the sub judice rule precluded any direct public advocacy during this period, Chapple began to encourage newspapers to run stories on expensive repair work that Electricorp was having to carry out on the Western Diversion tunnels. The idea being to portray the diversion scheme as a bit of a liability. *New Zealand Herald* 10 May 1989; *Whanganui Chronicle* 9 May 1989. Chapple's other tactic at this time was to make public statements, on behalf of the Society, praising DoC's advocacy for the Whanganui River. Cf. *Daily News* 11 May 1989; *Ruapehu Press* 16 May 1989.

situation for the energy policies of the government would appear to be confusing and conflicting (arguably a not inaccurate impression at that time).¹²⁷ It was therefore determined by the Cabinet Policy Committee that as 'a matter of national significance' a more coherent perspective could be put by the Ministry for the Environment – who were adopting a non-partisan role in the appeal – would lead the Energy witnesses. This example is illustrative of the divergent roles and perspectives that were held by state (and peri-state) entities within the conflict.¹²⁸

A second issue was the controversy that surrounded the exchange of evidence in the weeks directly preceding the hearing. Following the pre-hearing conference in April the Tribunal had set a deadline of 21 July for the circulation of Electricorp's evidence to the other parties.¹²⁹ However, on 4 August Electricorp submitted a memorandum to the Tribunal seeking leave to file evidence on 24 August – five weeks later than the Tribunal's deadline. The Corporation claimed that *all* of its evidence was reliant upon prior receipt of the Whanganui Maori Trust Board's evidence, which had yet to happen.¹³⁰ This assertion was on the one hand implicitly arrogant on the Corporation's part – ie. that Electricorp was the one party that reserved the right to peruse all the other parties' evidence – and on the other hand was patently manipulative because the bulk of the Corporation's evidence dealt with issues either peripheral or extraneous to the Trust Board's case. Nevertheless, the Corporation was given leave to do so, and on the 22, 23, and (mostly) Friday 24 August – the week before the hearing commenced – they delivered to the other parties the briefs of 41 witnesses which filled seven large ring-binders and ran to 3500 pages. Much of the evidence was "fresh and reported on unpublished investigations undertaken ... on contract to the Electricity Corporation since the Respondent's Tribunal heard the matter". Furthermore, the Corporation indicated that further information was forthcoming (some of this was fieldwork that was ongoing through August).¹³¹ The effect on the other parties was overwhelming. DoC was undoubtedly the only organisation able to fully analyse the new information. Electricorp had made it quite clear that it was going to pursue its case aggressively, and would utilise all of the vast resources at its disposal in doing so.¹³²

Thirdly, counsel representing the Minister of Conservation raised the issue of Electricorp pressure upon potential DoC witnesses:

A number of your [the Minister] witnesses, (or persons who had earlier indicated that they would be available as witnesses but are now not available), have reported to us that they have been subjected to subtle pressures by Electricorp intended to have the result that the witness is unavailable to give evidence in support of the Conservation argument. This pressure has most commonly been applied by suggesting that conflicts of interest will arise for that witness. The result would be that work would cease to be available to them from Electricorp while this case and any appeals arising from it are considered. This period has been intimated as being 3 years or more. This has proved to be a very successful ploy for Electricorp. With abolition of the Ministry of Works and Development many individuals having special skills, or controlling information that was formerly thought of as public now work for private organisations

¹²⁷ John Gallen (Office Solicitor, Ministry for the Environment), 16 June 1989, "Whanganui River Flow Appeals" Report to the Minister for the Environment, Ministry for the Environment.

¹²⁸ John Gallen (Office Solicitor, Ministry for the Environment), 11 July 1989, Memorandum on behalf of the Secretary for the Environment to the Minister for the Environment, Ministry for the Environment.

¹²⁹ D. Sheppard (Principal Planning Judge), 24 April 1989, Minutes of Judicial Conference (10 April).

¹³⁰ K. Chapple, 9 August 1989, Letter to Judge Sheppard.

¹³¹ Jim Guthrie and Andrew Cameron (Counsel for the Minister of Conservation), 26 August 1989, "Memorandum for his Honour Judge Sheppard".

¹³² All of the participants that I interviewed (apart from Electricorp staff) without prompting singled out this episode as a low-point of the conflict. Stories of piles of unread evidence being relegated to the 'back office' abounded.

(including SOE's and the Department of Scientific and Industrial Research). Your Department is having considerable difficulty in gaining access to information which was formerly controlled by the Crown and which private interests now claim to be private for reasons of commercial sensitivity or because of proprietary rights.¹³³

Electriccorp's size and monopoly position thus enabled it to subtly imply potential sanctions, and to control information.

12.3.(ii) *The Hearing*

Three weeks prior to the commencement of the hearing Judge Sheppard circulated a memorandum that directed the parties to make no public comment on the appeals until the Tribunal had made its decision. However, on the eve of the hearing an Electriccorp official and Coalition representative each made comments about the proceedings on National Radio. Also, on the morning of the hearing conservationists with placards surrounded the entrance to the Tribunal. Thus on beginning the hearing Judge Sheppard directly called the assembled counsel to his chambers to make it clear that such actions would not be tolerated (19 lawyers were present in court that morning¹³⁴). He also noted that the official's comments could be "seen as intimidating other parties from taking their full part in the proceedings in some way or another".¹³⁵ From the outset, the Judge was making it clear that the conflict was now a wholly juridical one, and that he was in control of the proceedings.

The Tribunal, consisting of the Judge and two lay members, sat for a total of 84 days between 4 September 1989 and 18 May 1990, and the testimony of 105 witnesses was heard over that time. The first two weeks of the hearing were held in Whanganui, with two of those days spent at Putiki Marae hearing evidence of Maori cultural and spiritual matters. The remainder of the hearing was held in Wellington, supposedly for the convenience of counsel and witnesses.¹³⁶ However, for the local representatives such as Chapple (who attended for the duration at the Tribunal) it meant a great deal of travelling and time away from home. Such difficulties were further compounded by the fact that the local parties were those who possessed the least resources.¹³⁷ The Tribunal also travelled extensively in the Whanganui catchment, to view the river throughout its length in different seasons. They also inspected the TPD and the Waikato power stations.¹³⁸

Given the scale and complexity of the hearing, it is only possible to discuss this period in the most general terms: I will first touch upon the substantive positions of the parties (note: the preferred regimes are set out in Table 12.1 below). The core arguments presented by the participants in the dispute were considered in the previous chapters (albeit in skeletal form compared to the dispute itself), so what I am doing here is providing a sense of the types and breadth of evidence that was presented by the different actors at this crucial stage; Secondly, I

¹³³ Jim Guthrie (Counsel for Minister of Conservation), 27 July 1989, Memorandum to Minister of Conservation and Department of Conservation.

¹³⁴ Keith Chapple, 20 September 1993, Personal Interview, Kakahi.

¹³⁵ *Whanganui Chronicle* 5 September 1989. In my interview with Keith Chapple he noted that he privately encouraged such public actions, media commentaries, documentaries etc. during this period, whilst maintaining an air of innocence in the Tribunal. Keith Chapple, 20 September 1993, Personal Interview, Kakahi.

¹³⁶ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council October 1990, Judge Sheppard, W70/90*, p. 10.

¹³⁷ Keith Chapple, 20 September 1993, Personal Interview, Kakahi.

¹³⁸ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council October 1990, Judge Sheppard, W70/90*, p. 10.

will discuss the legal arguments which, to a significant degree, differentiated this phase of the dispute from the previous stages; And thirdly, I will deal with the Planning Tribunal decision.

Table 12.1. The Planning Tribunal Appeal – Parties and Proposed Flow Regimes¹³⁹

Parties	Proposed Flow Regime
Electricorp	Regulate the operation of the WD at the Whakapapa intake structure, and if necessary at any other intake structure, to meet a flow of: (a) 0.6 cumecs at the Whakapapa footbridge gauging station; (b) 7.1 cumecs at the Piriaka gauging station; (c) 23.1 cumecs at the Te Maire gauging station from 1 December to 14 February and over the Easter period; and (d) Sufficient water to remain in the Whakapapa River when the temperature at Kakahi reaches 23°C.
Whanganui River Maori Trust Board	Minimum flow to be fixed at 100% of natural flow
Central Districts Catchment Board/Manawatu-Whanganui Regional Council ¹⁴⁰	To uphold the CB decision, which was: (a) A minimum acceptable flow at the Whanganui intake of 100% of the natural flow; (b) 8.5 cumecs at the Whakapapa Bridge, for the period 1 December to 30 April, and 4.2 cumecs for the balance of the year, subject to such flows being naturally available. (On the basis of the evidence presented at the PT hearing, the Board increased the 8.3 cumec figure to a prescribed 9.3 cumecs.
Minister for the Environment Minister of Conservation	Took a non-partisan stance on flows (a) Diversion from all the intakes would cease when flows less than or equal to the average annual seven-day low flow; (b) At least 50% of the flow above the average annual seven-day low flow would remain in the river; (c) Control parameters would be set at the intakes; (d) Diversion intakes would be modified so that the amount of sediment remaining in the river was in proportion to the natural transporting capacity of the modified flow; (e) That there would be no diversion in the Whanganui main stream; and (f) That the regime would remain unaltered throughout the year.
Whanganui River Flows Coalition	Focus should be upon restoring the natural rhythms of the Whanganui River system. Supported the proportional flow that was proposed on behalf of the Minister of Conservation.
Whanganui City Council	Supported any increase on the 1988 Catchment Board decision.
Taumarunui Borough Council/Ruapehu District Council	If the diversion was to continue then the Corporation should pay compensation to the Council.

¹³⁹ Ibid, pp. 10-15.

¹⁴⁰ During the hearing period the Central-Districts Catchment Board was dis-established and its catchment management functions were transferred to the new Manawatu-Whanganui Regional Council based in Palmerston North.

The Rotoaira Forest Trustees, the Lake Rotoaira Trustees, and Sir Hept Te Heu Heu Winston Oliver (river-boat operator)	Sought no reduction in the diversion flows into Lake Rotoaira Minimum Flow of 30 cumecs at Te Maire when available
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Electricorp essentially sought the continuance of the 1983 regime (although it did not do so consistently – counsel sometimes expressed a preference for even lower minimum flow levels). In its pursuit of this goal, the Corporation's strategy was (i) to provide an expansive legal argument seeking to undermine the legality of the Catchment Board decision and to limit the discretion of the Planning Tribunal, (ii) to present evidence on all matters which had been raised that touched on flows, and (iii) to systematically contest every point raised (which was of course enabled by (ii)). I will only focus upon broad evidentiary matters here.

I have already recorded that Electricorp circulated 3500 pages of evidence prior to the hearing. This evidence was authored and presented in the hearing by 42 witnesses, the majority of whom were qualified as scientists or engineers. Judge Sheppard described this corpus thus:

Their evidence described the Whanganui River and catchment in terms of their respective disciplines, and also the effects of the Western Diversion and of various minimum flow regimes in terms of their fields of knowledge, including geology, vulcanology, earth sciences, climate, hydrology, hydraulics, sediment transport, water quality and temperature and limnology, microbiology and public health, freshwater biology (including fisheries) and ecology, fish pathology, wildlife habitats (including those of the blue duck and black shag), the socio-economic environment, scenic, wild and natural landscape assessment, tourism, navigation, catchment management planning, effects on the Waikato River system, atmospheric effects of substitute electricity generation by burning fossil fuels, economic effects and cost benefit analysis, the structures and operation of the Tongariro Power Development, the history of the Western Diversion, hydraulic design and operation of the Western Diversion, comparison with small hydro-stations, integration of the electricity system, and the contribution of Western Diversion water to the electricity generation system.¹⁴¹

Many of the Electricorp witnesses were leaders in their fields, some were from overseas, and a large number were contracted from the Department of Scientific and Industrial Research (DSIR). Indeed it has been observed that Electricorp had whole divisions of the DSIR working on its case at times leading up to the hearing.¹⁴² These witnesses were utilised not only to author evidence in chief and supplementary evidence, but also to rebut the arguments of opponents' witnesses. Some of the experts, such as the hydrologists were retained for extended periods of the hearing to advise the counsel about technical matters (eg. for the purposes of cross-examination). The few matters that Electricorp did not seek to give evidence on were those "relevant to apprehensions and fear based on emotion rather than any probative concern".¹⁴³ This somewhat disparaging reference was essentially directed towards many (or some) of the arguments of Iwi and the regional advocates.

The Trust Board's case differed markedly from Electricorp's. As I noted in Chapter Ten, the dispute involved some starkly contrasting epistemologies, methodologies and most generally, world-views. None were further removed from Electricorp's 'technocentric' perspective than those presented in the Trust Board's case (as was evident in the previous chapter). The Trust Board argued for the full restoration of flows to the river:

¹⁴¹ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 11-13.

¹⁴² For example, eight scientists from the Water Sciences Division gave evidence. *Evening Standard* 11 September 1990.

¹⁴³ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 11.

It was submitted that this is a case where the Treaty of Waitangi obligation should be enforced rather than compromised, because compromise (it was said) is not really possible while the mana of the people was acknowledged. Countervailing interests could only prevail if they are of greater importance than a breach of the Treaty.¹⁴⁴

It called 24 witnesses, the majority of whom were long time residents of the river, but it also incorporated, inter alia, the evidence of academics with expertise in areas such as oral history, traditional fisheries, and cultural relationships with and valuation of water.¹⁴⁵ To illustrate its case the Trust Board arranged for the Tribunal to travel on the river by waka and jet boat, to visit a number of marae, and to view films of life on the river in the 1920s.¹⁴⁶ Legal counsel represented the Board throughout the appeal. Many of the tribal members attended the hearings in both Whanganui and Wellington.

The Catchment Board (later Regional Council) was named as Respondent in the appeal. Its counsel argued that the Tribunal should uphold the Catchment Board decision, and if there were to be any alteration to the regime then it should be to increase the minimum flow in the Whakapapa to 9.3 cumecs. In its defence of the decision the Board argued that (i) it was empowered to make a decision and had subsequently applied the correct decision-rules, (ii) the process was fair and reasonable, and (iii) on the evidence presented the decision was correct. Four witnesses were called to give evidence on the history of the issue, the Board's approach to minimum flow regimes, to explain the decision, to describe the hydrological effects of that decision upon the Whanganui River system, and to describe the effects of the TPD diversion flows upon the Waikato River system. The Board was represented throughout the appeal.¹⁴⁷

The Minister for the Environment took a non-partisan role in the proceedings, "and did not advocate any particular course or result".¹⁴⁸ The Ministry was, however, represented by counsel throughout the hearing, who were charged with keeping a watching brief.¹⁴⁹ MfE's participation was ultimately restricted to making submissions of law to assist the Tribunal, and to facilitating and leading the witnesses on energy conservation and management, and on global climate change and the greenhouse effect (see discussion above).¹⁵⁰

The Minister of Conservation was (along with the Whanganui River Maori Trust Board) the main counterbalance to Electricorp. The Minister's argument was that the Catchment Board regime was insufficient to provide for the in-stream values of the river. The Department of Conservation had moderated its position since the previous hearing (restoration of natural flows) and they now sought a regime which allowed substantial minimum flows in all of the headwater streams, enabled sediments to pass downstream in proportion to flows, and gave effect to the natural variation in flows. The DoC case was extensive, building on the research programs instigated prior to the previous hearing. 23 witnesses were called on behalf of the Minister:

Their evidence covered the Department of Conservation's interests; changes observed in the river; hydrology and changes in sediment transport resulting from the Western Diversion; erosion of

¹⁴⁴ Ibid, p. 12.

¹⁴⁵ Dame Joan Metge, Dr George Habib, and Professor James Ritchie respectively.

¹⁴⁶ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 12.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid., p. 13. The Ministry was responsible for the overall administration of the *Water Act* after the abolition of NWASCA.

¹⁴⁹ Bronwyn Arthur (Solicitor, Ministry for the Environment), 11 April 1994, Personal Interview, Wellington.

¹⁵⁰ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 13.

papa ledges; wildlife, including the blue duck; aquatic fauna; trout habitat and river flows; angling; water clarity and turbidity; navigation; rafting; recreation and tourism; survey analysis; travel-cost valuation; the Whanganui National Park; intake structures; the Whangamarino Wetland; the economics of the New Zealand electricity system; and energy conservation and planning.¹⁵¹

The Minister was well represented throughout the hearing by two legal counsel and various DoC staff who remained on hand to provide technical assistance.

The Coalition¹⁵² was represented throughout the proceedings by Keith Chapple who acted as a lay advocate (he was almost universally praised in his performance of this role¹⁵³). Chapple was briefly assisted during the arguments on law, by Peter Horsley a geography lecturer at Massey University and qualified lawyer. The Coalition advocated the restoration of the natural rhythms of the river system, and towards this end they supported the flow regime proposed by DoC. In strategic terms the Coalition were free to articulate the conservation case in a manner which was politically (and juridically) unavailable to the state conservation agency.¹⁵⁴ The Coalition called eight witnesses who were mostly locals – residents, anglers, and tourist operators.

A number of other parties were represented at times during the proceedings: The Whanganui City Council supported any move that would improve that natural flow of the river beyond the 1988 decision because of the interests of the City as a base for Tourism and the National Park. They gave evidence on siltation, and on regional and local planning instruments; The Taumarunui Borough Council argued that if the diversion was to continue greater compensation should be paid to the Council under the Piriaka Agreement. Its successor, the Ruapehu District Council, expressed a desire to see the river restored to something approaching its pre-TPD status; The Rotoaira Forest Trustees, the Lake Rotoaira Trustees, and Sir Hepi Te Heu Heu, called for no reduction in the diversion of water. The Ngati Tuwharetoa parties did not call evidence; Finally, the river-boat operator Winston Oliver also played a significant part in the hearing. He sought a greater minimum flow level at Te Maire, so as to provide for better

¹⁵¹ *Ibid.*, p. 13.

¹⁵² Which by this time represented 13 groups: Taumarunui Boating Club; Taumarunui and District Promotion and Development Association; Friends of the Shoreline, Whanganui; Whanganui Chamber of Commerce; Central North Island Wildlife Conservancy (Waimarino Ward); Hospitality Whanganui; Mr and Mrs P. McIntyre; Mr B Haggitt; Mr L. Rogers; NZ Freshwater Angling Society; NZ Jetboat Association; Maruia Society; Friends of Rivers at Kakahi Society; Taumarunui Museum Trust. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, Appendix 2. The Coalition had originally represented 35 groups prior to the appeal but the spectre of costs caused many to withdraw. Gerard Hutching, November 1990, "Keith Chapple: Speaking for the rivers" *Forest and Bird* p. 41.

¹⁵³ He also received considerable advice from other counsel (especially DoC). J. Garrett (then Resources Technical Manager, Central Districts Catchment Boards), 16 September 1993, Personal interview, Palmerston North. Chapple had to take two-thirds of the eight month appeal period off work. He commuted between Wellington and Kakahi, and often worked in his job at the Taumarunui hospital through the weekends between sittings. His wife Brenda was equally devoted to the campaign, and was pivotal in the processing and preparation of evidence, in addition to giving birth to a son at the time of the hearing. Other key members of the Coalition were:

Tom Wells, Larry Rogers, the Parker brothers [Owners of Plateau Guides Ltd.], Manu Lala and Jim Gosman [local Anglers]. Expert advice came from Massey University geography lecturer Peter Horsley and former Auckland University environmental studies lecturer Dr Bob Mann. Graeme Dingle and Grant Davidson [of the local Outdoor Pursuits Centre of NZ] gave invaluable advice on recreation; David Pate [energy consultant] on the electricity system, energy conservation and management; Brian Carran on regional development and tourism opportunities.

On the Coalition experience of the Planning Tribunal process, see: Gerard Hutching, November 1990, "Keith Chapple: Speaking for the rivers" *Forest and Bird* pp. 40-3.

¹⁵⁴ Keith Chapple, 20 September 1993, Personal Interview, Kakahi.

navigation in the middle reaches. He gave evidence on navigation, channel works, and tourism.¹⁵⁵

Media coverage of the dispute was extensive. The bulk of this was straightforward reportage of the arguments being presented in the Tribunal, for after the Judge's initial outburst there was virtually no media advocacy, or indeed a great deal of editorial comment. There were, however, some exceptions. For example, a highly publicised hour long documentary entitled "Electricorp and the Whanganui River: A Clash of Values" which was screened on national television.¹⁵⁶ The documentary clearly adopted a pro-conservation stance – an impression that was exacerbated by the reluctance of Electricorp officials to be interviewed.¹⁵⁷ The issue of Forest and Bird's withdrawal was focused upon (which as I noted earlier prompted the Judge to investigate the matter). But the most significant effect of the program was that it seriously damaged the public profile of Electricorp.¹⁵⁸ This would have been especially irritating given the Corporation's concerted public relations campaign aimed at selling electricity as the environmentally sound energy form.¹⁵⁹

12.3.(iii) *The Law: Powers, Judicial Discretion and Decision-Rules*

Of the 200 dense pages of the Planning Tribunal decision, 80 or so pages were devoted to summarising the legal arguments. These arguments spanned the gamut of legal forms, for example; statutory interpretation, principles of administrative law, case law and international mechanisms. The Tribunal was at once backward looking, examining the legitimacy and veracity of the 1988 decision, and forward looking, seeking to ascertain the powers, discretion and decision-rules that would enable it to make its own judgement. That the legal discourse was so wide-ranging was, in great part, due to the absence of direct precedent. It was also due to the absence of statutory guidance about the purpose, process and criteria for the setting of flows. Before I set out the Tribunal's overall conclusion on the law it is useful (once more, for the purposes of the analytical framework) to distil the essential legal approach taken by each of the main advocates; Electricorp, Maori and the Conservationists.

To a considerable extent the expansive nature of the legal discourse resulted from the unfocused 'shot-gun' approach taken by Electricorp in all facets of its appeal. But despite the Corporation's dilatory and diffuse strategy, an underlying theme persisted throughout most of their case – the inviolability and primacy of the prior use right. The Corporation's water rights, which ultimately derived from the 1958 Order in Council and were later validated by the *Water and Soil Conservation Amendment Act 1973*, constituted the *fons et origo* of Electricorp's argument. For example, Electricorp's counsel sought to undermine or diminish the 'minimum acceptable flow mechanism by submitting that:

¹⁵⁵ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 14-15.

¹⁵⁶ Television New Zealand, 6:00pm, 11 February 1990, "Electricorp and the Whanganui River: A Clash of Values" *Frontline* Channel One.

¹⁵⁷ *Ruapehu Press* 13 February 1990; *Whanganui Chronicle* 9 February 1990.

¹⁵⁸ This program caused much consternation within Electricorp. David Frow (General Manager, Electricorp Production), 14 February 1990, Letter to Dr Gerry McSweeney.

¹⁵⁹ In conjunction with its television and print advertising campaign Electricorp produced a corporate video that was clearly designed to promote the use of the Western Diversion and to portray hydro-production as having the least impact upon the environment. Pater Hayden and Tom Scott, 1990, "Our Future Generation: The Story of Electricorp Production" Valhalla Productions for Electricorp Production.

It is acceptable to allow for continuation of existing lawful uses except in emergencies, and not acceptable if a minimum acceptable flow detrimentally affects those rights so that a party who normally has the security of the right would be succumbing to a procedure varying the conditions on the right.¹⁶⁰

They similarly argued that S. 24 D (the section designed to give effect to minimum flow regimes) could not be used to vary conditions on water rights.¹⁶¹ A further line of argumentation related to the factors to be taken account of when setting a minimum acceptable flow:

Counsel for Electricorp submitted that it is necessary to give recognised existing consumptive uses priority over contingent optional, recreational or passive uses which have not been subjected to a notified application, objection and consent process. They contended that to be acceptable the flows fixed must first recognise those with legal authority under the Act, rather than those who might like to use water at higher flows, but have not established any prior right to do that pursuant to the Act.¹⁶²

The other main rights based argument pursued by the Corporation was in the realm of administrative law, namely the principle of 'legitimate expectation':

Mr Somerville submitted that a water right is a private legal right and entitlement to do certain things for the specified period. He contended that there is a legitimate expectation by existing users who are relying on a particular flow regime that the regime will not be changed unless identifiable impacts have occurred which lead to an adjustment to the regime; and that an adjustment will not be made unless those impacts are such that they outweigh the expectation that existing activities will not be restricted through a management procedure.¹⁶³

Lastly, in addition to these rights based arguments, and also directly relevant to the analytical framework, Electricorp asserted that (i) the WD water is used for the benefit of the nation, and (ii) that the 'national interest' must be given priority over regional matters.¹⁶⁴

The Whanganui River Maori Trust Board submitted, *inter alia*, that:

On the proper construction of the Water Act, priority is to be given to recognising Maori values and interests, to Maori rights under the Treaty of Waitangi, and a heavy weighting to the relationship of Maori people to the Whanganui River.¹⁶⁵

The Trust Board argument was essentially founded upon the developing body of case law that had recently explicated the *principles* of the Treaty of Waitangi, and had provided some guidance on the Crown's obligations to give effect to those principles in the administration of government.

Unsurprisingly the conservation advocates (the Coalition, Trust Board and DoC) argued first of all for no priority to be given to existing uses,¹⁶⁶ and second, for greater weight to be given to in-stream values.¹⁶⁷ Indeed, the counsel for the Minister of Conservation submitted that the very purpose of fixing a minimum flow was:

The conservation of water resources to ensure that in-stream values are offered a degree of protection from man's use of water consistent with the benefits being obtained from that use; to more adequately ensure the environment against harm.¹⁶⁸

Likewise, they opined that the purpose was also to maintain the river's natural character.¹⁶⁹

What I want to convey here, is that each major strand of argument appealed to some foundation – be it a property right, Treaty right, or ecological bottom-line – as a reason for

¹⁶⁰ *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, p. 44.

¹⁶¹ *Ibid.*, p. 54. Which if this was the case would essentially render the minimum flows mechanism useless.

¹⁶² *Ibid.*, p. 80.

¹⁶³ *Ibid.*, p. 85.

¹⁶⁴ *Ibid.*, p. 81.

¹⁶⁵ *Ibid.*, p. 69.

¹⁶⁶ *Ibid.*, p. 80.

¹⁶⁷ *Ibid.*, p. 74.

¹⁶⁸ *Ibid.*, p. 37.

¹⁶⁹ *Ibid.*

privileging those values within the decision-making process. The construction of the arguments and their articulation were drawn out, repetitive and often tangential, but in essence they were simple. While each of these arguments is interesting in terms of the questions at the heart of this thesis (eg. the role of private property or the nature of value-form), within the dispute they were ultimately judged to be either invalid arguments or *ultra vires*. The juridical logic of the Tribunal decision was a cumulative process of many individual decisions on points of law, slowly finding a basis and space for their discretion, and ascertaining which considerations were relevant and to what extent; a complex process of clearing. But at the end of this scrutiny there still stood S. 20 J of the Water Act with its balancing equation that privileged no particular concern prior to the consideration of the substantive arguments:

A balancing process requires the decision-maker to identify the relevant considerations, to evaluate each of them in the particular circumstances of the case, and then to strike a balance among them in the course of reaching the ultimate judgement. Continuing the metaphor, the evaluation involves imputing weight to be given to each consideration in the balancing process. Some may be quantifiable in a relatively straightforward way, such as by cost benefit analysis. Others may be metaphysical and unquantifiable, such as the spiritual and cultural values of the tangata whenua. The decision-maker has to weigh each in a way that enables fair comparison in the balancing.

It is our experience that the weight to be imputed to a class of consideration varies according to the circumstances of the case. ... Because many of the factors are unquantifiable, it is important that the various considerations are ascribed weights, which are related to the same scale, so they can be fairly placed in the same balancing. The only assurance of that can be that weights are ascribed to each of the factors, and the balancing made, by the same decision-maker.¹⁷⁰

The judge goes on to note that while Parliament can direct decision-makers to give weighting to a class or classes of factors this was not the case under S. 20 J.¹⁷¹ Judge Sheppard was dealing with the most perplexing and intractable problem in resource management – the conflict between “multiple languages of value”.¹⁷² His conclusion that the particular considerations could somehow be related to the same scale (a meta- or mediating ‘language’) is, however, a difficult one to sustain.

In effect the Tribunal had returned full circle to the simple exposition on the intent and workings of the Water Act set out by Don Spence two years previously. Granted, the Planning Tribunal’s comprehension of the Act was far more thorough, consisting of a core notion of the balancing process surrounded by a myriad of qualifications and justificatory arguments. But the prescribed balancing calculus remained, and it was the substantive evidence placed before the decision-makers that would (in theory) determine the weighting given to the respective concerns.¹⁷³

As an addendum here, there were two legal issues that pre-occupied Judge Sheppard at times during the dispute, each of which could have affected the status of the Tribunal hearing and final decision. The first, was with respect to the Trust Board’s pending claim to the Waitangi Tribunal, and the second, was the future status of any decision given the complete overhaul of resource legislation that was contemporaneous with the appeal, and would in all likelihood supersede the Water Act. Given the vast amount of resources that had already been devoted to the

¹⁷⁰ Ibid., pp. 68-9.

¹⁷¹ Ibid., pp. 69-80.

¹⁷² D. Harvey, 1996, *Justice, Nature and the Geography of Difference* Blackwell Publ., Cambridge Ma, p. 172.

¹⁷³ This may be seen either as the ludicrous presumption of complete juridical objectivity and lack of predisposition, or as a pragmatic attempt at ‘common-sense’ problem solving in the face of multiple discourses of value.

minimum flows issue, the Judge's intense concern about these matters was not without reason. It eventually required the appearance of the Solicitor General before the Tribunal to allay these concerns, and to urge the Tribunal to continue with the hearing.¹⁷⁴

12.3.(iv) *The Planning Tribunal Decision*

The Planning Tribunal released its decision on the appeals on 29 October 1990, just over five months after the completion of the hearings. The Tribunal made the following determinations:

1. That the decision of the Rangitikei-Whanganui Catchment Board and Regional Water Board made on 18 October 1988 fixing minimum acceptable flows for the Whanganui River is cancelled;
2. That pursuant to section 20J of the Water and Soil Conservation Act 1967 the minimum acceptable flow of the Whakapapa River at the footbridge flow gauging station ... from 1 June 1991 is fixed at 3 cubic metres per second, or the natural flow of the river, whichever is the less;
3. That pursuant to section 20J of that Act the minimum acceptable flow of the Whanganui River at the Te Maire flow gauging station ... from 1 June 1991 is fixed for the period from 1 December in each year to 31 May in each following year at 29 cubic metres per second, or the natural flow of the river, whichever is the less ...¹⁷⁵

The Tribunal had given a great deal of consideration to determining where the flows should be controlled as well as the appropriate flow levels that would give effect to its ultimate balancing of the evidence. The Catchment Board had set its control points at the Whanganui and Whakapapa intakes, with the complete cessation of diversion flows in the Upper Whanganui in deference to Maori concerns. However, the evidence presented to the Planning Tribunal on Maori cultural and spiritual values noted that *all* of the headwater streams had mana, and the Upper Whanganui was no special case. As a consequence, the Planning Tribunal did not single out the Upper Whanganui for special or symbolic treatment. The Planning Tribunal set its control points at the Whakapapa footbridge, and additionally at Te Maire. Setting minimum flows on the Whakapapa would be "effective for eliminating or reducing the gravest harm to the biota, and consequent harm to the cultural, tourism and recreational values, in the Whakapapa downstream of the intake".¹⁷⁶ But the Tribunal also wanted to acknowledge the range of in-stream values further downstream (both upstream and downstream of the Te Maire gauge), and it therefore set minimum flows at Te Maire (as the 1983 regime had). Interestingly, given his role in initiating the review process, the Tribunal singled out Winston Oliver's desired flow of 30 cumecs at Te Maire in its analysis, and its determination of 29 cumecs was not far off that figure – a neat conclusion.¹⁷⁷

I compare the flow levels in the final section. However, as a rough guide, the Planning Tribunal regime would allow Electricorp to abstract approximately 82 percent (6469 cumec days per year (cmd/yr)) of mean annual flows (7889 cmd/yr), as opposed to 95 percent under the 1983 regime, and 71 percent under the 1988 regime.

¹⁷⁴ Judge Sheppard had been extremely concerned and there ensued a period of some tension between the Tribunal and the Ministry for the Environment. On the Treaty claim, Electricorp was the only party that wanted to delay proceedings until the eventual Waitangi Tribunal decision. This was not surprising given the possibility that it could be many years before the completion of that process. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 96-8.

¹⁷⁵ *Ibid.*, p. 209. The decision was to be implemented and monitored by both the Regional Council and Electricorp.

¹⁷⁶ *Ibid.*, p. 188.

¹⁷⁷ *Ibid.*, pp. 184-93.

This time Electricorp's public response was far more measured. Where previously the Environmental Manager of the North Island Hydro Group had fronted for the Corporation, its spokesperson was now its Public Relations Manager, Juliet Hensley. Hensley acknowledged that there had been a "full and fair hearing", but pointed out that there would be "costs both in terms of replacing the lost electricity with more expensive thermal power generation and in terms of the impact of the fossil fuels".¹⁷⁸ But over the following month the financial, legal, and ("for the first time") public relations, implications were considered by Electricorp's senior management.¹⁷⁹ A decision was made to appeal the decision in the High Court.¹⁸⁰ In an attempt to mitigate the inevitable public criticism from the environmental movement etc., the Corporation argued that it was appealing not only because of the "still substantial" financial cost (which they put at \$3.6m per annum or a NPV of \$40m¹⁸¹), but also in order to prevent a 100,000 tonne increase in CO₂ emissions, and to "clarify the legal rules underlying minimum flow water hearings".¹⁸² Yet upon further examination the force of these arguments is somewhat diminished: First of all, the \$3.6m figure, while undoubtedly significant, must be seen in the context of a record profit for Electricorp of \$373m for 1989 (after tax and extraordinary expenses¹⁸³);¹⁸⁴ Secondly, the greenhouse gas argument was hugely over-exaggerated and blatantly manipulative (remember Judge Sheppard had identified the problem as real but negligible in terms of New Zealand's total emissions), and moreover, the Corporation was simultaneously pursuing a yearly target of 2 percent growth in net electricity production/consumption; And thirdly, the incoming resource legislation was going to transform the specific rules for the setting of minimum flows.

DoC's immediate response to the decision was reasonably positive. The Director General, Bill Mansfield, stated that; "although the precise flow regime sought on behalf of the Minister of Conservation at the hearing had not been granted, many of the factual concerns identified by the Minister's witnesses had been recognised and taken account of by the tribunal," and, "that the new flow was a considerable improvement".¹⁸⁵ Given the divergence between the Planning Tribunal decision and elements of the regime proposed by DoC as part of its case, the Department's response can be categorised as pragmatic. However, just when DoC had decided that it could live with the decision, Electricorp appealed. In a press statement the Minister of Conservation, Denis Marshall¹⁸⁶, strongly condemned Electricorp's chosen path and signalled his intention to oppose Electricorp in any appeal proceedings; "I have instructed the Department of Conservation to actively oppose the Electricity Corporation's appeal. The Department is

¹⁷⁸ *New Zealand Herald* 31 October 1990; *Whanganui Chronicle* 31 October 1990.

¹⁷⁹ Ian Johnstone (Group Environmental Manager, Electricorp), 9 September 1993, Personal Interview, Hamilton.

¹⁸⁰ Hilary Talbot (Senior Legal Advisor, Electricorp), 29 November 1990, Letter to Duncan Laing (Counsel for Manawatu-Whanganui Regional Council).

¹⁸¹ Once again, and contrary to the findings of the Tribunal, they asserted that this cost would have to be borne by electricity consumers. *Whanganui Chronicle* 30 November 1990.

¹⁸² *Whanganui Chronicle* 30 November 1990.

¹⁸³ Electricity Corporation of New Zealand, 1993, *Annual Report 1992/3*.

¹⁸⁴ *New Zealand Herald* 12 December 1990.

¹⁸⁵ *Whanganui Chronicle* October 21.

¹⁸⁶ Of the newly elected National Government.

representing many individuals and organisations who cannot afford the high legal costs involved". The Department lodged a cross-appeal¹⁸⁷

Keith Chapple and the Coalition responded in a similar manner to DoC. On the one hand they saw the decision as a vindication of their case to increase the flows in the river, but on the other hand they expressed disappointment over the continued de-watering of the Upper Whanganui and other tributary streams (other than the Whakapapa).¹⁸⁸ Yet overall they hailed the decision as a "sensible compromise" that would "restore, in some measure, the health of the river, improve fishing and angling values, and increase the habitat of the blue duck".¹⁸⁹ Over the following weeks the Coalition was widely lauded for its efforts, and a number of feature articles were written about Keith and Brenda Chapple and their three year battle for the river against the vast resources of Electricorp.¹⁹⁰ The Coalition's response to Electricorp's decision to appeal was one of outrage. In the national press Chapple pointed out that the ruling had merely decreased Electricorp's share of the headwater flows from 97 percent to 78 percent. He labelled Electricorp "the biggest corporate bully this country has ever seen", and exclaimed "Electricorp has money to burn – it is soaking up public dollars in its resource allocation by litigation, which other people simply do not have". Electricorp's exclamations on greenhouse emissions were seen as quite bizarre given the Corporation's expansionary business strategy.¹⁹¹ The Coalition's reaction was mirrored by the national office of Forest and Bird, and the Conservation Director of the Society subsequently wrote to the Minister of State Owned Enterprises, stating that "Electricorp's financial resources can wear down any opponent through litigation" and that "the playing field is firmly tilted in favour of Electricorp".¹⁹² The Government's position was that as a shareholder it had no role in operational matters and so the Minister passed on these letters of protest to the Corporation itself.¹⁹³

The Trust Board reserved its comment on the decision.¹⁹⁴ As a consequence it is difficult to determine whether they would have opted to appeal if Electricorp had not done so. But, following the Corporation's appeal, the Trust Board lodged a cross-appeal. At this time the Chairman, Archie Tairaoa, made a rare media statement on the issue, where he described the battle for the Whanganui River "as an extremely costly and drawn out affair ... but it is very important to our people". He noted that the Trust Board had already spent a "couple of hundred thousand dollars since 1988", and that "we are losers all the way in the Pakeha system".¹⁹⁵

¹⁸⁷ Denis Marshall (Minister of Conservation), 30 November 1990, Press Release: "Whanganui River Appeal Opposed".

¹⁸⁸ *Daily News* 31 October 1990.

¹⁸⁹ *Dominion* 31 October 1990; *Whanganui Chronicle* 31 October 1990.

¹⁹⁰ *Dominion Sunday Times* 4 November 1990; *Taumarunui Gazette* 6 November 1990; *Whanganui Chronicle* 14 November 1990; Gerard Hutching, November 1990, "Keith Chapple: Speaking for the rivers" *Forest and Bird* pp. 40-3.

¹⁹¹ *Dominion* 30 November 1990; *New Zealand Herald* 30 November 1990; *Whanganui Chronicle* 30 November 1990.

¹⁹² Kevin Smith (Conservation Director, Forest and Bird), 29 November 1990, Letter to Doug Kidd (Minister of State Owned Enterprises); *New Zealand Herald* 3 December 1990.

¹⁹³ Geraldine Baumann (Company Secretary, Electricorp), 3 April 1991, Letter to Don Gannon (Tauranga).

¹⁹⁴ *Whanganui Chronicle* 31 October 1990.

¹⁹⁵ *Whanganui Chronicle* 1 December 1990, 5 December 1990.

The general response in the Whanganui region was that the decision was a “sensible compromise”¹⁹⁶ and a “fair deal”.¹⁹⁷ The Regional Council's response was more complex. The General Manager, Reg Barrett initially reacted with caution; “There are certainly no clear winners and losers in the Tribunal decision”.¹⁹⁸ After further analysis they were even less enthusiastic; “In general, the minimum flows decisions were accepted [at the Council meeting] unenthusiastically”, however there was “no good reason to appeal against the Tribunal's decisions on any points of law”. The Council's rough analysis of the decision is interesting as they thought that the new decision favoured the headwater streams slightly less, and the middle reaches slightly more, than the 1988 decision.¹⁹⁹ Nonetheless, they were disappointed that the case was going to appeal. The big issue for the Council at this stage was the old one of cost for the ratepayers of the region – this prompted the Chairman to write once more to the Prime Minister to seek funding, but again they were turned down.²⁰⁰

The matter in turn progressed to the High Court, and I deal with that episode very briefly in the next section (for the appeals were ultimately unsuccessful and the Tribunal decision upheld). Before I do so, I will first make some general comments about the Planning Tribunal phase of the dispute.

In the Planning Tribunal process the Minimum Flows Conflict reached its dénouement. But this phase of the dispute differed greatly from what had gone before. The framework for the dispute narrowed within the juridical context and as a result evolved into a more formalised and less overtly political (certainly less democratic and inclusive) process. Yet at the same time the dispute grew in public stature, and in another sense became *more* politicised – that is, the issues of strategic capacities, of resources and institutional power, and the simple ability to participate in resource management decision-making, were a constant sub-text. Previously, opponents of water abstraction could adopt various relatively low-cost political strategies with considerable success. But from the inception of the Tribunal phase these avenues disappeared, and the continued participation of local, regional, or indeed any independent, voices in the dispute became an issue of sheer personal sacrifice and gumption (issues which shall be traversed in the following analytical chapter).

The juridical setting also had a profound effect upon the substantive discourse. In the Catchment Board hearing the balancing process proceeded roughly as follows; The parties tended to promote bold schemes, these positions were underpinned by evidence that varied immensely in its nature and quality (certainly there was greater tolerance of different epistemologies), this evidence essentially stood untested within the hearing process and hence divergent perspectives on particular issues were reconciled later on within the balancing process, and the balancing calculus involved a compromise between a *matrix of diverse* positions. Also of note was that the decision-making process was located solely within the Whanganui region and, moreover, that concerns about past processes and future uses were more readily entertained (these were judged beyond the scope of the Planning Tribunal decision).

¹⁹⁶ *Daily News* 31 October 1990.

¹⁹⁷ *Whanganui Chronicle* 31 October 1990, editorial.

¹⁹⁸ *Daily News* 1 November 1990.

¹⁹⁹ *Whanganui Chronicle* 21 November 1990.

²⁰⁰ *Daily News* 21 November 1990; Jim Bolger (Prime Minister), 5 March 1991, Letter to Reg Barrett (Chairman, Manawatu-Whanganui Regional Council).

In contrast the Planning Tribunal phase was far more structured and contested. With regard to evidentiary matters, while the Planning Tribunal did not expressly discourage direct statements of value, the very nature of the process tended to encourage probative discourse of some sort or another.²⁰¹ The flow regimes or arguments presented by the parties tended to be more constrained as a result of this, and where exaggerated statements were made, such practices as the provision of supplementary and rebuttal evidence, and cross examination, served to moderate those claims. The result of this was that the Tribunal's balancing calculus operated on the basis of more highly scrutinised information (and without reference to some of the more spontaneous arguments that had persisted previously), and a narrower spectrum of positions (the non-reducible Maori' arguments excepted). Some mention should be made of the overall logic of the decision. As I noted earlier the Tribunal's extensive legal analysis determined the powers, discretions and decision rules, and the substantive arguments were subsequently placed within that framework. The Tribunal's analysis of the substantive argument (tens of thousands of pages of evidence and 2,500 pages of transcript) can only be described as a phenomenally accomplished effort at integrative resource decision-making. It was, essentially, a series of hundreds of micro-decisions on a myriad of matters (i.e. whose, if anyone's, arguments were *considered* to be correct and what weight to give to them?). These building blocks of reasoned argument were amalgamated within subject areas, and then finally weighed together. Yet despite the overall rigour of that process it finally came down to (and I use this term guardedly) a *common sense* and distinctly personal judgement. It was ultimately an example of the absolute epistemic limits (boundedness), contingency and subjectivity of any decision-making process.

Lastly here, it is once again necessary to touch upon the issue of resources. The types of resources relied upon by the participants varied greatly, and many remain unknown either because of an absence of records or because of a reluctance to divulge expenditures.²⁰² Nevertheless it is possible to provide an approximate survey: First of all, Electricorp's expenditure was the subject of much speculation. The Corporation itself disseminated various estimates from \$500,000²⁰³ to \$2.4m²⁰⁴. However, both of these figures are patently understated given the scale and nature of Electricorp's research and advocacy processes compared to those of other parties (for many of which official figures exist). The most likely estimates fall in a range between \$7-\$15m²⁰⁵. Which is not unreasonable when a single overseas expert witness was reputedly paid \$750,000 for their research and testimony, another paid \$250,000, and the DSIR \$5m; Secondly, DoC released a figure of \$625,000, without

²⁰¹ Judge Sheppard stated: "... in these proceedings no party carries any legal burden of proof. However each party has the evidential burden of establishing those matters which are advanced by it, to the standard of proof required. Any party must produce some evidential basis to support the contentions and submissions that it makes". In effect, he was providing an hortatory exclamation that parties should strive to prove their assertions within and against the standards of their respective discourses. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, pp. 93-4.

²⁰² Electricorp (and the government agencies that it employed, such as the DSIR) was extremely sensitive about this issue, and managed to evade official information requests and appeals to the Office of the Ombudsman. *Evening Standard* 11 September 1990.

²⁰³ *Evening Post* 6 November 1990.

²⁰⁴ *Evening Standard* 11 September 1990.

²⁰⁵ *Whanganui Chronicle* 14 November 1990; P. Horsley, 1991, "Whanganui Flow-ons" *Terra Nova* Vol. 2, February, pp. 25-7.

taking into account many of its internal costs²⁰⁶; Thirdly, the Coalition estimated that it spent \$43,000, which did not take into account the large quantities of unpaid labour and free advice²⁰⁷; Fourthly, the Trust Board roughly estimated its costs as a "couple of hundred thousand dollars"²⁰⁸; And finally the Regional Council placed its costs in the region of \$650-700,000 (including the \$250,000 for its previous decision process). The costs of other parties such as MfE and the local bodies were not assessed. These figures can only be taken as indicative of both the scale and the disparate resources employed within the conflict, which at the end of the Planning Tribunal process was described by the Justice Department as "probably" the lengthiest and most costly Planning Tribunal case in New Zealand's history.²⁰⁹

12.4. The 1992 High Court Appeals

The three appeals to the High Court were not to be heard until March 1992. So in early 1991, with the hearing a distant prospect, the campaigners set out to keep the minimum flows issue alive and on the public agenda. They swiftly latched onto the subject of the \$3.8m modifications and repair work that was ongoing in the Western Diversion tunnels. The abrasive action of sand and gravel fines upon the walls of the tunnels had caused substantial damage, and the Coalition mischievously questioned the integrity of the structures, and claimed that the work would have deleterious effects upon the blue duck populations.²¹⁰ This issue was continually raised over the following months.²¹¹ Another issue pursued was electricity efficiency. A research paper from within Electricorp was leaked to Forest and Bird. The society singled out (completely out of context) a speculative comment that energy efficiency measures could in theory decrease electricity consumption by up to 57 percent, and they proceeded to manipulate this information in the media.²¹² Following this the Society and Chapple criticised the role of world-renowned conservationist Dr David Bellamy, who had been employed by Electricorp Marketing to participate in a series of advertisements aimed at branding the Corporation as environmentally-friendly.²¹³ Also at this time the Minister of Maori Affairs, Winston Peters, joined the Minister of Conservation in condemning Electricorp's pursuit of their appeal.²¹⁴ Despite Electricorp's efforts to justify its actions, its corporate image continued to be badly damaged by the Whanganui issue.²¹⁵

The High Court appeals were eventually heard in Wellington on 16-20, and 23-24 March 1992. In addition to the three appellants; the strategic Crown perspective on the process was

²⁰⁶ *Evening Standard* 11 September 1990.

²⁰⁷ *Evening Post* 6 November 1990.

²⁰⁸ *Whanganui Chronicle* 1 December 1990

²⁰⁹ Gerard Hutching, November 1990, "Keith Chapple: Speaking for the rivers" *Forest and Bird* p. 41.

²¹⁰ *Whanganui Chronicle* 5 January 1991; *Daily News* 9 January 1991; *Dominion* 21 January 1991; *Whanganui Chronicle* 22 January 1991.

²¹¹ Keith Chapple, 20 September 1993, Personal Interview, Kakahi.

²¹² *New Zealand Herald* 19 January 1991.

²¹³ *Dominion* 1 February 1991; *New Zealand Herald* 1 February 1991.

²¹⁴ *New Zealand Herald* 26 January 1991; *Daily News* 28 January 1991.

²¹⁵ For example; Russell Howie (Senior Environmental Advisor, Electricorp Production), 1991, "Electricorp Reveals Why Low Flow Means High Court" *Terra Nova* Vol. 2, February, pp. 26-7; Also Chapple's rejoinder article. Keith Chapple, 1991, "Bandits on the Whanganui" *Terra Nova* Vol. 7, July, pp. 42-4.

represented by the Solicitor General and the Crown Law Office, the Regional Council remained as respondent, the Minister for the Environment was represented, and Keith Chapple²¹⁶ continued to represent the Coalition. Electricorp's appeal was heard first. Once again its counsel, Roy Somerville, deployed a wide and unfocused approach (and Justice Jeffries made much of that diffuseness). But the underlying theme throughout was the old one – that the Tribunal had failed to give special weighting to existing water rights. The argument was primarily about matters of legal interpretation. However, the substantive issues were touched upon in respect to the questions of whether the analysis was *reasonable* and *fair*. The High Court's investigation was directed towards and based upon the Planning Tribunal's argumentation rather than the primary evidence. The Electricorp appeal was unsuccessful on all grounds.²¹⁷

The Minister of Conservation's appeal was based on a single cause of action; that the Tribunal failed to give special weighting to in-stream values. Justice Jeffries felt that the essence of S. 20J of the Water Act had a greater affinity with conservation and in-stream values than the protection of use-rights that Electricorp asserted, but he ultimately held this did not amount to a special weighting or primacy. He therefore dismissed the Conservation appeal also.²¹⁸

At the completion of the Electricorp appeal and Conservation cross-appeal, the counsel for the Maori Trust Board, Sian Elias QC, sought, and was granted, an adjournment until the Court had made its determination on those appeals. In the event of both appeals failing the Trust Board would then abandon its appeal. This was indeed the case, and the High Court appeals effectively ended at that point.²¹⁹

The two appeals dealt with by the Court were so comprehensively dismissed that there was little point in further challenges in the Court of Appeal.²²⁰ Electricorp's strategic position was by this time completely 'lose-lose'. The adversarial character of the Whanganui minimum flows process did not sit well with the Corporation's otherwise consultative approach to resource management (indeed it could be seen as the catalyst for that change in approach).²²¹ Most importantly, the Corporation was embarking on its water rights applications under the *Resource Management Act 1991* (RMA) and those processes would be universally reliant upon public trust and goodwill. While the Corporation still perceived the loss of WD flows as unacceptable, they "simply had to live with it".²²² Electricorp's acquiescence also meant that there was no reason for DoC to continue to litigate their case. The WRMF conflict was over almost five years

²¹⁶ Chapple made a brief submission in support of the Minister of Conservation's appeal. He subsequently acknowledged that by this stage he was well out of his depth, and essentially an observer. Keith Chapple, 20 September 1993, Personal Interview, Kakahi.

²¹⁷ *Electricity Corporation of New Zealand Ltd and Others v Manawatu-Whanganui Regional Council* High Court, Wellington, 3 June 1992, AP 302/90, Jeffries J.

²¹⁸ *Ibid.* Of some interest here is that counsel for the Minister for the Environment openly opposed the arguments on behalf of the Minister of Conservation. p. 46.

²¹⁹ Justice Jeffries provided an oral judgement on 24 March 1992. His written judgement was issued 3 June 1992.

²²⁰ *New Zealand Herald* 25 June 1992.

²²¹ Ian Johnstone (Group Environmental Manager, Electricorp), 9 September 1993, Personal Interview, Hamilton. Johnstone noted that by the late 1980's the Corporation was actively consulting with local communities over water resource issues with much success. He also noted that while the WRMF conflict had been a big lesson for the Corporation in how not to deal with such questions, that the Corporation's mistakes had been evident at an early stage. However, Electricorp was "locked into" an unsatisfactory formal and adversarial process from the time the Catchment Board decided on the process.

²²² *Ibid.*

after the initiation of the flow review, and almost fifteen years since the Canoe Association's letter.

Once again, it is necessary to touch upon the issue of resources. For most parties the costs incurred during this phase were predominantly legal fees. The Regional Council spent \$67,000 on its two lawyers,²²³ and while figures are not available for other parties, similar sums would be likely as all parties, except for the Coalition, were represented by at least two legal counsels for the duration of the hearing. Electricorp's costs would, once again, have been far higher due to the greater preparation involved in their case.

Finally, the Planning Tribunal decision came into force on 1 September 1992, four years after the expiry of the previous regime.²²⁴ During the interim period the Corporation had voluntarily complied with the 1983 minimum flow guidelines. However, by delaying the imposition of a new flow regime Electricorp had been able to abstract 13 percent²²⁵ more than it would have otherwise been able to if the Planning Tribunal regime had replaced the 1983 regime on 31 October 1988 (24 percent had the Catchment Board decision been upheld). The value of that water to Electricorp was at least \$2.34m per year or an approximate total of \$9.36m (in 1989 terms).²²⁶ The delaying tactics thus offset either all, or the bulk of, the transaction costs of the minimum flows conflict to Electricorp. In stark contrast, those pursuing greater in-stream flows received no such reduction in costs, indeed their costs were heightened by the delays, with four years of benefits to in-stream values being lost. There was no legal requirement to compensate for such substantive losses.

12.5. The Whanganui River Minimum Flows Conflict

The purpose of this final section is to tidy-up some loose ends, and to draw the threads of the largely empirical elements of the study together before I apply the analytical framework in the following chapter. In particular, I examine two aspects of the study that, while touched upon here and there within previous discussion, merit a composite analysis. The first aspect is the need to address the question of whether or not the Corporation prevailed in substantive terms (although I would like to stress that the issue of *how* it exercised its power is the focus of the following analytical chapter). The second is the issue of media coverage of the dispute – and on that subject I survey the newspaper coverage of the dispute. Lastly, I broadly summarise the conflict.

12.5.(i) *The Substantive Outcomes*

In the Black Head study the analysis of the substantive outcome was a pivotal and extensive element of my argument. In contrast, I will discuss the substantive outcome of the Whanganui

²²³ Duncan Laing (Senior Counsel for Manawatu-Whanganui Regional Council), 1 April 1992, Letter and attached invoice to Regional Council.

²²⁴ It was to be jointly managed by the Regional Council and Electricorp, and monitored remotely. There had been no subsequent compliance problems by September 1993. J. Garrett (then Resources Technical Manager, Central Districts Catchment Boards), 16 September 1993, Personal Interview, Palmerston North.

²²⁵ Of mean annual flows.

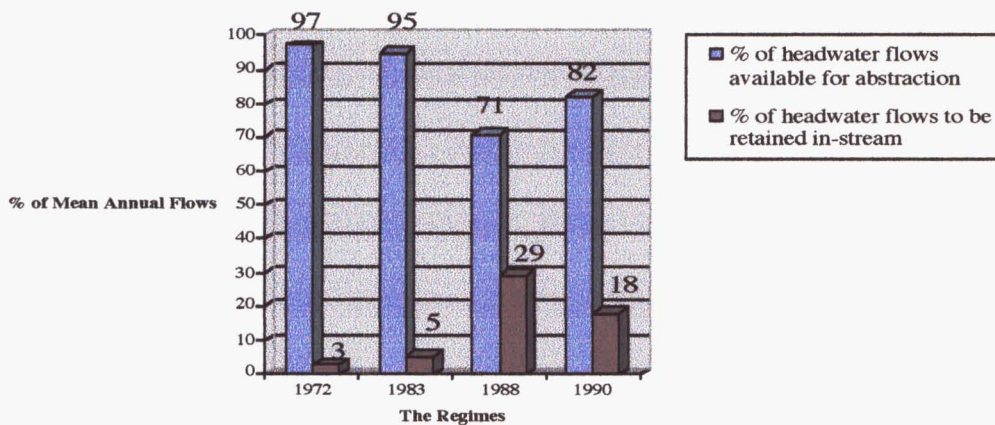
²²⁶ I base these calculations on the figure of \$18m for the total loss of the diversion flows. *Electricity Corporation of New Zealand Ltd v Manawatu-Whanganui Regional Council* October 1990, Judge Sheppard, W70/90, on Whanganui River Minimum Flows Appeals 1990 Wellington, p. 165.

dispute only in the most general terms. I do so because: (i) The outcome of the WRMF dispute is most usefully viewed as a series of outcomes (I have already discussed each decision and the parties' responses to those regimes); (ii) The overwhelming substantive complexity of the conflict means that a systematic analysis would, perforce, approximate and duplicate the comprehensive decision processes of the dispute itself; And (iii), unlike the Black Head conflict the juridical process served to filter and test the parties' claims – as a consequence there was no comparable disjuncture or 'false consciousness' between the parties' perceptions and the reality of the settlement (see 13.4.(iv)).

Table 12.2. The Minimum Flow Regimes

	Flow Measurement Point	Flow Levels (cumecs)	Duration
1972	Whakapapa footbridge	0.6	Year round
1983	Whakapapa footbridge ²²⁷	0.6	Year round
	Te Maire	22	1 December to 14 Feb. plus Easter
1988		16	Rest of year
	Whakapapa footbridge	8.5.	1 December to 30 April
		4.2	1 May to 31 November
1990	Whanganui Intake	Natural Flows	Year round
	Whakapapa footbridge	3	Year round
	Te Maire	29	1 December to 31 May

Figure 12.2. The Minimum Flow Regimes Compared on the Basis of Mean Annual Flows²²⁸



It is helpful to first plot and compare the respective flow regimes in broad terms, bearing in mind that each regime was the product of, and judged within, a contingent bundle of information, expectations, practices and structural conditions. Figure 12.1. is a blunt résumé of

²²⁷ The Whakapapa minimum flow was not part of the NWASCA regime – it was the continuation of the existing arrangement between the NZED and the NZ Wildlife Service.

²²⁸ The figures used here are those set out in *Electricity Corporation of New Zealand Ltd and Others v Manawatu-Whanganui Regional Council* High Court, Wellington, 3 June 1992, AP 302/90, Jeffries J. p. 6.

the three main decisions, however it usefully illustrates the general movement within the decision making process. Prior to the commencement of the NWASCA regime the NZED had been able to abstract virtually all of the headwater flows (subject to the limited constraints of the Piriaka and Kakahi arrangements). The 1983 regime had little substantive effect upon this – the loss of a further 2% of mean annual flows. It was the 1988 decision that signalled a substantial shift in the management of the water resource. But the Planning Tribunal's review soon moderated that movement. Viewing the successive decisions in this way, the Planning Tribunal judgement appears as a distinct compromise position equidistant from the 1983 and 1988 levels. The impression given is that despite the rigour of the Tribunal process – the comprehensive reasoning process and justificatory arguments – the ultimate decision rested squarely between the polarities of the NWASCA and Catchment Board regimes.

The final outcome was also a compromise between the parties' substantive positions. Yet while it is true that none of the participants achieved all they had set out to, it was also the case that some achieved more, or conceded less, than others. The distinctions here are relative rather than absolute.

A simple argument can be made in support of the proposition that, on balance, Electricorp did prevail in the dispute. At the beginning of the conflict the NZED was effectively entitled to exclusive use of the headwater flows – they were in the position of having nothing to gain and everything to lose. This meant that the strategic goal of both the NZED and Electricorp was, at best, to *mitigate* their losses. These losses were respectively 5 percent, 29 percent and 18 percent of the mean headwater flows, for the 1983, 1988 and 1990 regimes. The final figure of 18 percent is the important one here. Against the vigorous and protracted campaign to restore most, if not all, of the natural flows, the Corporation had succeeded in retaining over four-fifths of that water. Indeed, if that outcome is set against the 1972 regime, then the losses to Electricorp were in the region of only one-eighth of headwater flows. This is not to deny the undoubtedly significant costs to the Corporation of the settlement – \$3.6 m per year or an NPV of approximately \$40 m, in addition to the functional constraints it placed upon the operation of the generation system – rather, it is simply to recognise that *most* of the headwater resource remained available to Electricorp (see 12.3.(iv)).

Because of the zero-sum character of the diversion/retention equation, a complementary argument can be made about those who advocated increased in-stream flows. Those parties started the dispute with nothing to lose and everything to gain, and they ended with roughly a fifth of mean annual headwater-flows retained in-stream. It is possible to construe this result as a success solely because it was a gain *per se*. But such an interpretation is set against the 1972 flows regime, and it is equally possible to proffer an alternative analysis based upon the pre-diversion distribution. On this alternative account 18 percent of natural headwater-flow appears as small consolation for the in-stream advocates.

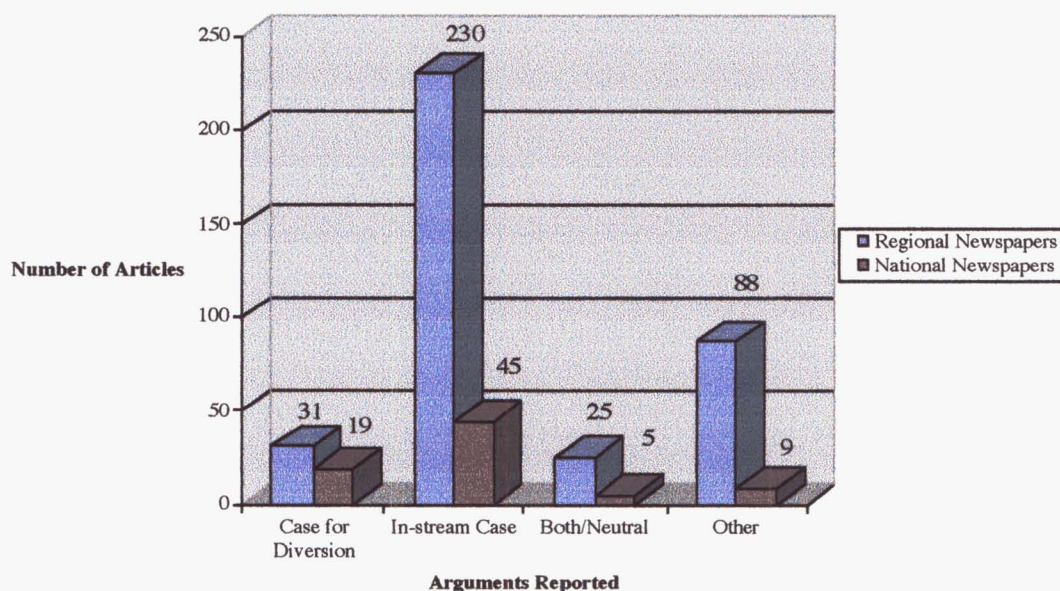
The final settlement can be analysed in a myriad of ways; it can be measured against the substantive arguments and value-narratives articulated within the dispute, against different historical baselines, against the strategic positions of the various actors, or on the basis of their responses (which I have recorded throughout this chapter), etc. But ultimately, and as recognised by the decision-makers in the dispute, there is no objective calculus by which to analyse the decision. What I offer in summary, is the observation that as a result of the dispute the Corporation retained the use of *most* of the headwater flows and the in-stream advocates far

less. Obviously aspects other than the quantitative assessment of flows would be integral to a more comprehensive assessment of the substantive outcome (of relevance, for example, would be the matter of the distribution of compensation flows throughout the year or across the headwater streams, or indeed, the fact that water retained in-stream would be more valuable for in-stream needs at the lower margins and there would be some element of diminishing returns as greater compensation flows were awarded). Nevertheless, the quantitative summary does provide a useful working impression of the distribution of benefits and costs. I will set my analysis of the generative mechanisms of business influence against that aggregate picture.

12.5.(ii) *The Media Coverage*

The way the substantive arguments were represented in the public discourse is an important element of the 'power to define reality' mechanism that was originally explicated in Chapter Five, and that will be applied to this conflict in 13.4.(iv). Throughout this chapter I have referred to the various strategies used by actors to influence the presentation of their interests in the news media – towards the goal of shaping public discourse and opinion. In terms of historical analysis the media coverage is interesting on a number of levels. On one level it provides a useful record of the conflict – hence my reliance on that resource here and there within this case study. But it is another level that specifically concerns me here, that is the level of how the dispute was *generally reported* in the media. This is particularly important because it concerns the issues of power and discourse that are highlighted in the analytical framework. In Figure 12.2. I set out the results of a survey of 452 newspaper articles that appeared in four regional papers and three national papers over the full course of the dispute.²²⁹ I have restricted my focus to newspaper coverage because it was by far the most common form of media reporting on this issue, and this allows a greater sample to be used, and thus provides a sounder basis for inference. I would like to stress that this is not to diminish the importance of other modes of communication such as radio and television coverage (I have already referred to prominent examples throughout the study), it is rather, that from a historical perspective it is impossible/impracticable to survey those forms. Furthermore, all those forms are referred to in the analysis in 13.4.(iv).

²²⁹ Those papers are: Regional *Whanganui Chronicle*, *Taumarunui Gazette*, *Daily News* (New Plymouth), *Ruapehu Press*; National *Dominion* (Wellington), *Dominion Sunday Times*, *New Zealand Herald* (Auckland).

Figure 12.2. Newspaper Coverage of the WRMF Conflict²³⁰

Each article has been classified as falling within one of four general categories. In the first two categories the articles dealt exclusively with either the arguments for diversion, or alternatively for the retention of greater in-stream flows. The third category embraces instances that either included *both* of the first two sets of arguments, or that reported the substantive issues in the dispute in broadly neutral terms (an example of this would be a description of the power scheme). The fourth category is a residual one where the dispute was discussed in any other way – most of the articles categorised as such were about matters of process (eg. agendas for hearings).²³¹

A basic tendency is apparent from the data presented in Figure 12.2: The in-stream arguments were far more widely reported than the arguments for diversion. Not surprisingly, this tendency was more marked in the regional newspaper coverage. This asymmetry was most likely explained by, on the one hand, an element of editorial bias or greater receptivity towards the regional, conservation, recreation and Maori arguments, and on the other hand, the in-stream advocates greater reliance upon public opinion and the media as means of exercising influence in the conflict.

12.5.(iii) Conclusion

In Chapters Ten, Eleven and Twelve I have endeavoured to construct a comprehensive and balanced account of the WRMF dispute. My primary goal has been to serve the needs of the analytical framework – to provide a factual basis for the assessment of business dominance in this dispute. I have sought to provide enough breadth of detail to set my concerns within the wider historical and substantive contexts. By doing so I hope to assist and allow for the composition of ancillary and complementary (and possibly competing) causal explanations of this very important episode of resource conflict.

²³⁰ See Appendix I for the data sets.

²³¹ I have made no distinction between the size of the articles presented.

The WRMF dispute is a compelling study for many reasons; the scope of the conflict, the complexity of the issues that subsequently surrounded a seemingly straightforward choice, the numerous discourses of value and forms of reason, etc. But my interest lies with the mechanisms of business power posited in Chapters Four and Five. As a consequence, the following chapter is solely devoted to the task of operationalising the theoretical framework in the context of the WRMF dispute. The starting point for that investigation must be the endpoint of discussion in this chapter – viz. the general conclusion that while Electricorp did indeed prevail in the WRMF conflict the outcome was by no means unequivocal, and that Electricorp was certainly forced to make substantial concessions to the needs of competing values.

A Critical Analysis of the Whanganui Conflict

13.1. Introduction

As with Chapter Nine of the Black Head study, the task here is to use the analytical framework in the investigation of the WRMF conflict. This is a two-way operation involving, on the one hand, the use of theoretical precepts to explain, in some meaningful part, the processes and outcomes of the Whanganui conflict, and on the other hand, to let the historical evidence reflect back upon the framework itself – to scrutinise the posited mechanisms of business dominance. In doing this the greatest difficulty is to detect or infer the exercise (or non-exercise) of these transfactual mechanisms within the ‘noise’ of the complex conjuncture.¹

The general approach taken is the same as before. I begin with a brief section on value-form. As I noted at the beginning of Chapter Four, the distinction between use-value and exchange-value, and in applied terms, commodified and non-commodified values, performs a dual function. First of all, it acts analytically as a broad ordering principle for the discussion of environmental politics. Secondly, it allows for a systematic connection to be made between social class (functionally defined) and *type* of substantive value-connection with the natural world. Yet like Chapter Nine, the bulk of the chapter is devoted to investigating the model of politics and mechanisms of power originally set out in Chapter Five. Following the progression of the analytical framework, discussion moves from the strategic level of politics – the general causal imperatives that are the subject of Offe’s schema – to the more specific generative mechanisms such as the matter of property rights or the dilemma of collective action.

13.2. Value-Form

As with my critical analysis of the Black Head conflict, the discussion of value-form is only a preface to the central questions of the political schema – *the framework of business dominance*. The application of the value argument to the case studies is largely a matter of a simple assessment of whether or not there was a general *fit* between the types of actors in the dispute and the types of value-holdings that motivated their political action. But I will also ascertain whether there was a noticeable *prima facie* connection between value-form and environmental harm – namely, were

¹ Remembering that the posited structural relationships, and specific mechanisms of business dominance, must be conceived as *transfactual* entities (Chapter Two).

the commodified interests also the interests that potentially or actually resulted in the greatest environmental harm?

13.2.(i) *Commodified and Non-Commodified Value Arguments*

As with the Black Head dispute, commodified values featured in the discourse in at least two ways; first in terms of the articulation or expression of the substantive arguments, and secondly there was the matter of essential motivations. With regard to the former, a range of actors on both sides of the substantive argument over flows expressed their interests in money terms. But this does not itself subvert the basic connection between value-type and social grouping. As I noted in Chapter Four, the money-form is *the* dominant expression of value in capitalist society. Hence some of the in-stream advocates were at times *translating* their arguments into the dominant language of value (ie. surrogate prices). For others, money-valuations were an appropriate expression of their interests (ie. markets existed). Although for all of those in-stream advocates the commodity valuations were only one of a range of value types that they used in their arguments. The main point to be made at this level is that Electricorp was the only actor that utilised commodity valuations as its *primary* expression of value.

But it was in terms of motivations or interests that there was the most marked correspondence with the value schema. Once again, there was some crossover with in-stream advocates being motivated to various degrees by the pursuit of exchange-value. Nevertheless, non-commodified types of value essentially motivated even those in-stream actors who did stress the economic implications of flows. Examples of this would be the tourist operators who were concerned not so much with the matter of profitable accumulation per se, but rather making a living in a particular *place* and in a close *relationship* with the river. Electricorp was the only central actor whose driving force was the "passionate chase after exchange-value". For the Corporation the dispute was about the availability of low cost and highly profitable generating capacity. Marx argued that "it is only in so far as the appropriation of ever more and more wealth in the abstract becomes the sole motive of his operations, that he functions as a capitalist".² On such an account Electricorp was the only agent that can be clearly classified as having acted as a capitalist in the Whanganui conflict.

This assessment can be confirmed by focusing, conversely, on the non-commodified value arguments. Again there were the two dimensions. In terms of the articulation or expression of value, non-commodified arguments were drawn upon by all of the parties involved. Electricorp's argument was peppered with references to various use-values of the water. For example the value of the Tokaanu station for frequency control. Notwithstanding this, Electricorp's primary expression of value was, as noted above, in terms of its financial interests. By contrast, the in-stream campaigners articulated their interests by reference to a wide array of non-commodified value-forms. The Tangata Whenua referred to the river as a taonga, mahinga kai resource, recreational resource, and as of value as a pathway. None of those arguments were expressed as money-values. The conservation case spanned a spectrum of values: The ecological arguments referred to the inherent or 'intrinsic' natural values of ecosystems (ie. the integrity of the system, connections, natural processes), life-support arguments, scarcity values, etc.; The landscape

² K. Marx, 1958 (1867), *Capital: A Critical Analysis of Capitalist Production* Vol. 1, Foreign Language Publishing House, Moscow, pp. 152-3.

values referred to aesthetics, scientific/naturalistic value, historical values, spiritual connections; And the recreational arguments referred to various uses such as boating and fishing. There were many languages of value expressed within the dispute.

But the crucial issue here, as above, was that while Electricorp utilised non-commodified value arguments they did not pertain to its *essential* motivations. Arguments such as the 'frequency control' issue were well founded, but for Electricorp, like any other capitalist, they were only important in so far as they affected the overall profitability of the enterprise, and not for their own sake. The in-stream advocates, by contrast, were essentially motivated by a diverse collection of non-commodified value-forms. There was a strong fit between the type of actor in the dispute and their type of value-holdings. On the one hand, there was Electricorp which *expressed* its interests through a range of instrumental use and exchange-value arguments, but was essentially motivated by exchange-value. On the other hand, there were the in-stream advocates who *in great part* both articulated their interests in terms of, and were essentially motivated by, non-commodified values. It is thus legitimate to say, for the purposes of the following political analysis, that Electricorp can be classified and treated essentially as a capitalist enterprise, and that the in-stream advocates, where they were not acting as capitalists (which was almost exclusively apart from the tourist operators), can be classified in a residual sense as environmentalists/non-capitalists.

13.2.(ii) *Value-Form and Environmental Harm in the WRMF conflict*

The task here is to ascertain whether there was a *prima facie* connection between value-form and environmental harm – namely, were the commodified interests also the interests that potentially or actually resulted in the greatest environmental harm?

In Chapter Ten I argued that the operation of the Western Diversion had deleterious biophysical effects upon the Whanganui River system. I also observed that there was a *tendential* relationship between the two, with greater levels of water abstraction leading to greater levels of environmental harm. I did, however, provide the caveat that the relationship was complex, for example, there were undoubtedly threshold effects and the effects of the diversion were greatest at the higher increments of water abstraction (conversely, that there would probably be diminishing marginal environmental returns from increasing minimum flow levels beyond some point). Yet overall it was possible to say that the operation of the Diversion caused significant environmental harm, and that the more water used the greater the harm.³

Over the course of Chapters Eleven and Twelve I discussed the parties and their arguments/interests vis-à-vis flows. I noted that the interests of both the NZED and its successor Electricorp lay with the maximum utilisation of the headwater flows. This raises a crucial issue, because while the NZED built and operated the scheme in order to exploit the resource fully, they were not *directly* motivated by profitable accumulation and, hence, exchange-value. Electricorp, on the other hand, was so motivated. Common to both was the fact that they advocated a use of the resource that led to significant environmental harm – they were both large scale and exploitative developmental organisations – but they were *not* both capitalists. Yet this does not negate or even diminish the core argument for three reasons: First, I noted at the start that the realist understanding of complex open systems allows for the exercise of other mechanisms of environmental

³ There was, of course, the argument that the use of the water for hydro-generation avoided greater greenhouse gas emissions. So the relationship was not absolute.

exploitation (thus allowing for explanations of environmental harm in other than advanced capitalist societies); Secondly, while the NZED was not itself motivated by the passionate chase after exchange-value, it was, as I shall argue in 13.3.(iii), ultimately motivated by the need to sustain the requisite conditions for system wide accumulation; And thirdly, for the crux period of the dispute Electricorp was the primary developmental actor, and hence, for that period commodity production was the primary source of environmental harm.

In Chapter Four I argued that the commodity form poses a number of ecological difficulties. All of those difficulties are somehow applicable to the production and exchange of electricity using the diversion flows. But two of those difficulties are of particular relevance. First and foremost is the observation that the use-value/exchange-value split involves an inherent disconnection. I argued that the consequence of the blindness of exchange-value to the rich and manifold qualities of things, and to the peculiarities of the production process, is that many environmental and other costs are subsequently externalised – they are not accounted for within the exchange-value. This was most certainly the case with Electricorp's use of the water. Indeed, there was no recognition of the various costs associated with the loss of in-stream flows, even in a most superficial sense – for example they did not pay any resource rental for the water rights. The only recognition of those costs came in the form of the minimum-flows process and outcomes. The second factor is that emphasised by Harvey: "Money prices attach to particular things and presuppose exchangeable entities with respect to which private property rights can be established or inferred. This means that we conceive of *entities* as if they can be taken out of any ecosystem of which they are a part."⁴ Certainly, the water of the headwater streams was treated as separate from all of its natural functions and connections within the downstream river system. I make these points to emphasise that not only was Electricorp the primary cause of environmental harm, but some of the mechanisms of value posited in Chapter Four were, indeed, efficacious in causing that harm.

A last point. The money form is the dominant value discourse in advanced capitalist society. Money values are generated within and in response to markets, which are an ubiquitous form of social choice mechanism. But the WRMF dispute was arbitrated within a broadly juridical social choice mechanism. Both the Catchment Board tribunal and the Planning Tribunal were not only open to, but also actively encouraged the articulation and inclusion of other value forms within the decision-making process (they were empowered to do so by the *Water Act*). The existence of those bodies and frameworks can be seen, to some degree, as a necessary response to market failures, such as those that derive from the ecological failings of the commodity form. It is important to acknowledge the success of those frameworks in including varied value types, compared to the very exclusive and narrow boundaries of the negotiation framework in the Black Head conflict.

⁴ D. Harvey, 1996, *Justice, Nature and the Geography of Difference* Blackwell Publ., Cambridge Ma, p. 153.

13.3. Business, State and Environment: Offe's Model

13.3.(i) Exclusion

On the surface the exclusion principle functioned far less obviously in the WRMF conflict than in the Black Head dispute. At times there was no apparent division, with the state acting, for all intents and purposes, as a capitalist. However, the situation was both complex and dynamic – indeed, it is absolutely crucial to perceive the operation of the exclusion imperative as an ongoing process. Because of this I will focus upon two distinct chronological periods.

Prior to 1986 the planning/design, construction and operation of the TPD had been the sole preserve of the state – variously, the State Hydro-electricity Department, New Zealand Electricity Department and Ministry of Works and Development, and later the Electricity Division of the Ministry of Energy. As I noted in both 10.3.(i) and 11.1.(ii), these were leviathan development agencies charged with the provision of key infrastructure during a period of sustained economic growth. At the beginning of the dispute (late 1970s) the *raison d'être* of the NZED was the strategic guarantee of electricity supply, and not, at least in the first instance, to function as a capitalist enterprise motivated by profitable accumulation. For these development agencies electricity was not so much a tradeable commodity, than a social or public good (see maintenance function). This, however, changed towards the mid-1980s in the lead up to corporatisation.⁵

Contrasting interpretations may be drawn here. One analysis is that if electricity was not ultimately treated as a commodity then the state's role in its supply does not necessarily contravene the exclusion principle. For if the state was not producing commodities then it was not acting as a capitalist. But I would tend to hold that while the exigencies of electricity production and supply were not wholly consistent with private commodity production (ie. the passionate chase after exchange-value), the state was accumulating capital in the process (albeit with limited returns on its investment), and perhaps of most importance it was potentially supplanting *private* production. On this account the state was involved in accumulation, and as a consequence it was violating, or in conflict with, the exclusion imperative. The veracity of this interpretation is further bolstered when the pressure for institutional change is taken into account. Much of the neo-liberal reform program can be seen as a functional response to the state's contravention of the exclusion principle. The state had been increasingly active in organising many facets of commodity production, as well as 'socialising' many goods that had been, or could be, treated as commodities. The neo-liberal structural adjustment program sought to reverse that process.

This leads into the second institutional phase following the establishment of the Electricity Corporation in 1986. The SOE form raises a host of questions about the littoral zone between state and business. Most crucially here, as to whether Electricorp is to be classified for analytical purposes, as either state or business? Building on the value-form analysis, my answer to this must be that as a participant in the Whanganui conflict the Corporation acted almost wholly as a commercial enterprise. Their primary motivation was to be a profitable business, and this drove all aspects of Electricorp's strategy. The Crown did retain ownership and some measure of control over the Corporation, but its relationship was determinedly hands-off. This functional separation was clearly evident in the dispute process, where the strategic interaction between Electricorp and various central government agencies was almost entirely played out within the public arena. The

⁵ This is not to imply that electricity ceased to be of essential social use-value after that time.

Cabinet or officials committee, is testament to the desire to allow the SOE to function autonomously and transparently, even though in the short run this could involve significant procedural costs. Finally, while it is possible, and appropriate, to treat Electricorp in functional terms as a business enterprise, it is important to recognise that for the neo-liberal reformers the SOE model was only an interim phase before privatisation. Only by divesting itself of ownership would the state fully realise the underlying exclusion imperative.

The consequence of this analysis is that the genesis and first stage of the dispute must be understood as being between the state and environmentalists/Maori/regional interests, although, as I will argue in the 'Maintenance' category, the state was ultimately driven by the wider needs of accumulation. In the second phase of the dispute, the conflict was between both capital and the state, and between capital and environmentalists/Maori/regional interests.

13.3.(ii) *Dependency*

To recap, the strength of the capitalist state largely depends upon the strength of the economy as a whole. In Chapter Five I asserted that this fiscal dependence incorporates two interconnected elements. First, that the material capacity of the state to make decisions, and act upon them, is predicated upon the resources that it extracts from private accumulation (and that the ability of the state to extract such material concessions will be dependent upon the *performance* of the economy itself). Secondly, that the state's legitimacy is, in great part, dependent upon the economy, and this in turn is a powerful motivation for the state to serve the interests of capital.

As with Black Head, the dependency relationship functioned in the Whanganui conflict on both national and regional levels. On the one hand, there were the agencies of central government that relied upon general taxation revenues for their existence, and on the other hand, there were local bodies largely dependent upon rates and levies upon local communities. Each level of state activity was fundamentally bound by this constraint. But the extent to which this in turn motivated or affected their strategic behaviour is difficult to ascertain. Certainly, the action element is more *directly* explained by the concomitant maintenance and legitimation imperatives. One of the few occasions when the dependency relation was exposed was the episode when Treasury officials voiced their concerns about the potential loss of asset value and income stream that could accrue from further limits upon diversion flows (for Electricorp was a significant source of government revenue). At the local level the dependency mechanism was probably partly responsible for the various local councils' advocacy of regional economic interests.

The dependency relation is taken here to underpin other elements of the framework – a secondary or 'deep' structural mechanism – and as a consequence is of use in explaining the existence of *those* elements (such as the maintenance function or the state's pre-disposition to the needs of business), but it tends not to cast direct light upon historical events.

13.3.(iii) *Maintenance*

The dependency principle motivates the state in the performance of a this crucial third element of Offe's schema – the maintenance function – whereby the state seeks to create, sustain and modify the conditions in which capitalists engage in production for profit. As I observed in the analytical framework, this role is carried out both in the broad context of the system-wide needs of capital, and the narrower contexts pertaining to fractions and/or moments of accumulation. I also asserted

that particular patterns of accumulation establish crucial and specific impulses for state action (and, for that matter, in-action).

At the very beginning of the analytical framework I referred to a widespread transition in advanced capitalist societies, from the late 1970s onwards, from a pattern of accumulation characterised by Fordist production and Keynesian state managerialism to a more flexible and fluid pattern of accumulation.⁶ One crucial political-ideological manifestation (and driver) of this movement was the neo-liberal reform program referred to throughout this case study, and most recently in the discussion of the exclusion principle. The WRMF conflict straddled this transition, and as a result there existed two distinct patterns of state action, and most significantly here, two distinct patterns of *maintenance*. I will thus split my discussion of the maintenance function into the periods before and after the corporatisation of electricity production.

The maintenance dynamic is pivotal in explaining the state's involvement in electricity generation prior to 1986. In 11.1.(ii) I noted that during this period electricity was treated, by the state at least, as being of *instrumental* value at the scale of society as a whole – *social use-value*. Electricity was necessary for social development and economic growth. It was on this basis that the state dominated in the construction, ownership and operation of an integrated electricity generation and transmission system. This is consistent with the system-wide imperative upon the state to provide the general material conditions for profitable accumulation. Another causal element also became of increasing importance. This was the need for the state to counter *threats* to accumulation. In this case it was the actual effects of the energy crises of the 1970s, and the perceived risk of further disruptions to the New Zealand economy.⁷ The state's response to this was to continue with the expansion of the generation system, focusing upon indigenous energy resources, and also to regulate use. There also developed a greater emphasis upon integrated energy planning and management at the centre. As will be revealed in the discussion of 'legitimation' next, this powerful articulation of the maintenance function overrode all other concerns such as environmental and other community considerations.

The historical exercise of this imperative accounts, in great part, for the genesis of the WRMF conflict: It clearly motivated the construction of the TPD and the Western Diversion; It explains the centralised and opaque nature of the original decision-making process; And it explains the way the power planners were either oblivious to, paid lip-service towards, or simply overrode, various community concerns – concerns that subsequently evolved into the arguments presented in the dispute.

But the second phase – re-configured pattern of maintenance – is equally important in explaining the development of the dispute. The structural adjustment program of the mid-1980s onwards radically transformed the state's economic function in general, and role in electricity supply in particular. The transition process is particularly revealing. As I noted in Chapter Eleven, the dissolution of the large developmental agencies was motivated by at least two strands of criticism. The foremost arguments were about the economic in-efficiency of those agencies⁸ – that they delivered a poor return on public investment (when viewed as businesses). This was an

⁶ See D. Harvey, 1989, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* Basil Blackwell, Oxford, pp. 147-50.

⁷ Also here, there was the initial choice to construct the TPD. This was made largely because its modular structure placed relatively few demands – or at least staggered those demands – upon New Zealand's overseas reserves during a period when the economy had slowed (see 10.3.(i)).

⁸ That is, in-efficiency judged on the basis of the neo-classical notion of market efficiency.

“anti-statist” and “anti-corporatist” position that involved a strong ideological commitment to the ‘capitalisation’ of state activities (see also 5.3.(iv)).⁹ A second strand of criticism was founded upon a succession of environmental grievances, stimulated largely by the deleterious and highly unpopular ecological and social effects of major projects such as the TPD. This was a useful political justification for the core reformers, but for them it was really a collateral one, with the economic arguments always central.

In brief, the assertion made by the proponents of structural reform was that the state was increasingly failing in its performance of the system-wide maintenance function – it was no longer providing the requisite conditions for profitable accumulation. Also, as I noted above, the wholesale intervention of the state in areas such as electricity supply was clearly in conflict with the exclusion principle. The new approach was detailed in Chapter Eleven, namely:

- A commitment to the market in preference to the state as a means for allocating resources;
- Emphasis on individual and corporate freedom as a key to economic progress and social well-being; and
- A reduced role for the state in the economy.¹⁰

Electricity was to be treated singularly as a commodity. Its supply and transmission was to be operated as a business, despite ownership being retained almost wholly by the Crown for the time being – as an interim position before privatisation. The withdrawal of the state from direct involvement in the production and transmission of electricity was itself an articulation of the maintenance role. Only by this time the optimal conditions for aggregate accumulation were judged to be best provided by a less interventionist state.

This framework had a two-fold effect upon Electricorp’s strategic position within the WRMF conflict. On the one hand, the Corporation was free to pursue its interests relatively unencumbered by political control and tactical compromises. For example, it had the sole discretion to expend vast resources on legal and other transaction costs of conflict (although it also had to bear fully the public disapprobation for this). It could also be strident in advocating its position in a way that would, in all likelihood, not have been politically tenable within the old development agencies. But on the other hand, the state’s withdrawal meant that there was little chance that there would be political intervention *in support of* the Corporation’s interests – interventions to counter a threat to sectoral interests or a specific capital (regardless of Electricorp’s relative ability to pursue its own interests). It also meant that Electricorp had to pursue its case in public, and there was no possibility of the type of corporatist accommodation that may have ensued previously.

It is also useful here to review some specific manifestations of the maintenance functions as they related to various participants during the post-1986 period: First of all, a very important element of the Whanganui conflict was the role of the courts. This was consistent with the state’s functional responsibility for providing the institutional framework for the regulation of conflict. It is doubtful, however, that the courts served the substantive interests of capital in this instance;¹¹ Secondly, the involvement of Treasury noted above is interesting in so far as that control agency had been a major proponent of the corporatisation process which saw electricity supply distanced

⁹ G. Bertram, 1993, “Keynesianism, Neoclassicism, and the State” In B. Roper, and C. Rudd, (eds), 1993, *State and Economy in New Zealand* Oxford University Press, Auckland, p. 37.

¹⁰ R. Mascarenhas, 1991, “State-Owned Enterprises” in: J. Boston, J. Martin, J. Pallot, and P. Walsh, (eds), 1991, *Reshaping the State: New Zealand’s Bureaucratic Revolution* Oxford University Press, Auckland.

¹¹ This is not to say that the courts do not function that way. See: H. Collins, 1982, *Marxism and Law* Clarendon Press, Oxford. A seminal text on the ideological or political role of the Courts is: J. Griffith, 1985, *The Politics of the Judiciary* (third edition) Fontana Press, Great Britain.

from political control. Yet at the same time its officials were advocating the kind of corporatist inter-departmental accommodation that had been a central object of their critique of past administration (the desire for transparency and accountability) – there was a strong element of ‘wanting to have their cake and eat it’; And thirdly, the Ministry of Energy did articulate a sectoral perspective, and in doing so were closest to the historical maintenance role. But even so, they were fairly ineffectual in their stance and, indeed, capacity to influence events.

The divergence between the national interest and the regional interest provides a good example of the tensions inherent within the overall maintenance role. The various local bodies engaged in the dispute were motivated to some extent by their own dependence upon local economies, but also by their general mandate to represent the local interest, and they advocated the commercial benefits that would accrue to the region if flow levels were increased. This brought them into conflict with Electricorp, which equated its own commercial interests with the national economic interest.

The maintenance function explains a lot about the WRMF conflict at a general level. It was articulated in two quite distinct fashions over the course of the dispute. Prior to 1986 it was manifest primarily in the form of direct state provision of strategic infrastructure. Post 1986 it was manifest as a withdrawal of the state from direct involvement in electricity supply. Because of this, the mechanism helps explain in a broadly ‘positive sense’ the genesis of the dispute, and in a broadly ‘negative sense’ the middle and end of the conflict (by which I mean that the state did not intervene in support of Electricorp).

13.3.(iv) *Legitimation*

“... the generally observable need of any power, or even of any advantage of life, to justify itself.”¹²

It is imperative upon the state (in a liberal democracy) that it *be seen* to “pursue the common and general interests of society as a whole, allows equal access to power and is responsive to justified demands”.¹³ This is the legitimatory function. Following Williams and Reuten, it is understood here that the legitimation of the state involves both the “specification of the content of *negative right* through the framework of the law”, and “a further *positive* specification of these rights – grounded in welfare policy [which must include environmental welfare] and the institutions of civil society”.¹⁴ The question here is just how did this dual process of legitimation manifest itself in the Whanganui dispute?

As with the maintenance function, over the course of the dispute there were a series of distinguishable patterns of legitimation. I will deal with each of these in turn. The first period predates the minimum flow process, spanning the planning and construction phases of the TPD. As I recorded in Chapter Ten, the power development progressed with remarkably few regulatory or procedural constraints. The scheme was deemed lawful not by virtue of a new act of Parliament, statutory planning procedure or, indeed, any meaningful consultative or even vaguely democratic process. Instead, the whole project was enabled by the far less transparent instrument of an Order in Council under the *Public Works Act 1928*. It was essentially legitimated by

¹² M. Weber, 1968, *Economy and Society III* Bedminster Press, New York, p. 953.

¹³ C. Offe, In L. Lindberg, (ed.), 1975, *Stress and Contradiction in Modern Capitalism* D C Heath and Co., London, p. 127.

¹⁴ M. Williams, and G. Reuten, 1993, “The Political-Economic Transformations in Central and Eastern Europe: A Tragic Neglect of Civil Society” *Working Paper Series 2/93* Graduate School of Business and Government Management, Victoria University of Wellington, p. 16.

executive fiat and justified on the basis of the exigencies of national economic interest (maintenance function). Of utmost importance in the current context was the failure of this process when measured against the expectations of modern liberal democracy (let alone the fuller conception set out in Chapter One).¹⁵ The developers failed to (i) divulge adequate information about the scheme, (ii) to examine social and environmental impacts (even cursorily), (iii) to consult with the public, and (iv) to accommodate community concerns (which of course were stifled by (i), (ii), and (iii)). The consequences of this failure to predict or survey, wider interests were compounded by the general absence, or inaction, of state agencies that could have advocated such concerns on their behalf. For example, there was no government agency actively articulating the environmental concerns (at that stage framed as 'scenery preservation' or 'trout fishery'). When the Wildlife Service did eventually become involved it was after the design stage, and any consequent changes were necessarily restricted to limited structural modifications (eg. ladders for trout to make their way past obstructions) or minor operating restrictions such as those embodied in the Kakahi temperature agreement.¹⁶ In retrospect, the consequence of the emphasis upon economic legitimacy (see 5.3.(ii)), the stealthy but categorical legal foundation (negative right), and general failure to accommodate potential and actual community concerns (positive right), can be seen to constitute something of a *legitimation deficit* – one that would in all probability have to be subsequently reconciled in some way.¹⁷

The second period covers the opening stage of the dispute following the Canoe Association's 1977 request. Many of the dormant regional concerns did not surface at this time. Indeed, even when prompted, some such as the Whanganui River Reserves Trust, did not express a great deal of dissatisfaction with the status quo. There were at least four reasons for this. First, some of the groups and individuals that were to play a central role in later proceedings did not consider the minimum flows mechanism to be either the most appropriate or viable, avenue for the expression of their grievances or achievement of their goals. For example, Te-Aitihau-nui-a-Paparangi were focusing upon the Treaty of Waitangi claims process, and FORKS (Chapple, etc.) were pursuing a Local Water Conservation Notice for the Whakapapa River. Secondly, there was still a general lack of awareness about the issue in the region. Thirdly, there was the issue of expectations. Even those who did involve themselves in this process couched their claims in very conservative terms compared to later in the process. This may have been a strategic response to the complete 'stranglehold' over the river held by the NZED, and its perceived political power. Finally, while much of the dissatisfaction with the diversion could be seen to derive in some way from the inadequacies of the original development process, the responses were also formed by contemporary values, activities,¹⁸ political aspirations, etc. (themselves a product of the historical

¹⁵ Such as, for example, that planning processes will be fairly transparent, that potentially affected communities will be provided with avenues for meaningful participation in decision-making process, and that their interests will be taken into account.

¹⁶ The one other example of the state accommodating the concerns of those in the Whanganui region was with regard to the Piriaka power station, which constituted the type of economic use of the water that was 'valued' at the time.

¹⁷ This legitimation deficit must be seen in the context of a succession of state development projects that similarly involved deleterious ecological and social consequences. It was this cumulative deficit that, in some significant part, led to the dissolution of the monolithic development agencies and the creation of the new environmental administration in the mid-1980s.

¹⁸ For example, canoeing was to become more and more popular over the following few years.

context¹⁹). In brief, some concerns remained dormant and others had yet to develop, and the upshot of this was that while there was some pressure upon the state to make compromises that influence was fairly limited.

In this early phase of the dispute the state was beginning to take notice of wider community demands. In enacting the *Water Act*, the state recognised that water was valued in a multiplicity of ways – not all commodified. In fact, the balancing process at the heart of the Act was a clear example of a framework where the legitimation function and the maintenance function come together and are in some way reconciled. But while that framework was in place, the balancing process meant that any substantive accommodation would only occur on a case by case basis. The 1983 adjustment of the flow regime was minimal, and hence amounted to only a small legitimatory acknowledgment.

Although the *Water Act* provided the framework for this accommodation, it was the Catchment Board and ultimately NWASCA that controlled this process and determined its outcome. With regard to the legitimation role, those organisations can be understood, on the one hand, as facilitating and supporting participation and the expression of community concerns²⁰ (albeit prompted by the canoeists), and on the other hand, as in some way controlling or shaping those very concerns. For example, Don Spence functioned in a gatekeeper role, filtering out claims that he perceived as too ambitious or beyond the ambit of the exercise. One other characteristic of this early process, was that it remained relatively hidden from the public (see 12.1.(i)).

It was with the emergence of the water rights campaign and the parallel minimum flow review that the legitimation role came to the fore. The pattern of legitimation that materialised during this phase must be understood on two levels. First of all there was the system-wide context. As noted above, by dissolving the NZED and creating Electricorp the state moved the electricity generation and transmission functions to arms length. One effect of this movement was that the state was no longer directly responsible for legitimating the electricity production process and its impacts upon the social and natural environments. As I have also repeatedly stated, the Corporation functioned as a business. Moreover, its political power derived not so much from its residual relationship with the state, but rather, from its position as a monopoly generator. A consequence of this within the conflict was that the state ceased to be the direct or primary focus of criticism for those opposing the diversion of flows. The one exception was with regard to the water rights question where the government was lobbied hard, and ultimately made significant concessions – indeed those concessions can be viewed as a move by the state to bring about a more publicly acceptable (hence more legitimate) water use regime. Of greatest note was that in transferring the rights the state had passed on the historical legitimation deficit to Electricorp.²¹

¹⁹ Indeed, one has to be careful about concentrating on subjective preferences because they are themselves (as I made clear in Part I of the thesis) products of existing power structures.

²⁰ Of note here was the way that Don Spence actively protected the process from the NZED's stand-over tactics.

²¹ It is appropriate that I make some supplementary reference to the issue of corporate power and legitimation here. In an excellent article in the *Western Political Quarterly*, Neil Mitchell argues along Weberian lines that the firm seeks power in order to make and maintain a profit, hence: "The actions of corporations have public influence and effect. The obverse of the exercise of power, for the business firm as for the state, is the problem of legitimising that power". He later describes how business goes about legitimising its activity: Traditionally businessmen have sought legitimacy in an ideology based on classical economic theory, the pivotal assumption of which is competition. The central tenet of traditional business ideology is the claim of powerlessness on the part of the individual firm. The firm's activity, in

Concomitant with this transition, was the establishment of the Department of Conservation which, was to not only manage the Crown lands under its direct stewardship, but was also to act as a wider conservation advocate. The environmental struggle that, in some considerable part, precipitated this transition can be seen as a response to a widespread failure of the state to legitimise its own developmental activity and to control the environmental effects of other economic activity. This was a wider version of the legitimisation deficit attached to the TPD. Although this was not the sole reason, as increasing environmental awareness and expectations also drove these changes. The existence of DoC and its mandate is wholly in line with the notion of positive right explicated in the analytical framework – the state is forced to open itself to non-capitalist interests, and it is obliged to make *material concessions* which may be immediately or partially subversive of capitalist accumulation.

The position taken and acted upon by DoC within the conflict was itself immediately and partially subversive of accumulation. From the very beginning of their involvement the Department constituted a significant threat to the profitability of the Corporation. Throughout the 1988 Catchment Board process the Department advocated the *full* restoration of natural flows. Even if one takes this to be a rhetorical or tactical position, it was still the most *absolute* position that could be taken on this issue. Moreover, DoC actually pursued that goal with considerable zeal, and at very considerable cost given the Department's limited budget and vast range of obligations (and the later Planning Tribunal phase involved costs of an even greater order of magnitude – see below). They also had to weather opposition such as that of Treasury, and also the parliamentary opposition. The question that arises here is how the Department was able to adopt and justify this approach given the concomitant maintenance role.

A number of factors explain this. First, there was the contemporaneous water rights issue and regional campaign. As I noted in 12.2.(ii) DoC did not participate in that campaign – which was beyond its direct mandate and also highly politicised. However, the water rights campaign did set the political agenda, by raising public awareness, mobilising support, and raising expectations about the restoration of flows. Indeed, the campaign built upon the hitherto dormant grievances that had stemmed from the genesis of the TPD. But while this process involved the Minister of Conservation, thus raising the profile of the flows issue at the national political level, the Department had for some time focused its activities on the minimum flow review process. DoC's preliminary involvement was not driven or even prompted²² by the Coalition's activities, but they did help create the political will to support the Department's actions once they were underway. This was most certainly the case once the water rights question had been settled and the Coalition turned to the minimum flows process.

The second reason was, as noted above, the distancing of the electricity supply function from the state, and the re-configuration of the maintenance role to one of *non-intervention*. This effectively created a window of opportunity for DoC with regard to the WD issue. The

the competitive market is in harmony with the public good, and under traditional ideology is self-legitimising.

But in situations like the one here, where Electricorp was in a monopoly position, this competitive argument falls down (even despite the arguments that the threat of new participants acts as a sufficient discipline), and legitimisation problems arise. Thus, instead of denying its power, the monopoly player will seek to justify its position – most significantly, by the inculcation of an ideology of social (and in this case 'environmental') responsibility. See: N. Mitchell, 1986, "Corporate Power, Legitimacy, and Social Policy" *Western Political Quarterly* Vol. 39, No. 2, pp. 199-205.

²² DoC had responded autonomously to Spence's agenda for the review process.

Department had no obligations towards Electricorp and its production role, and their relationship was not necessarily close – i.e. an *interdepartmental* one as may have been the case previously. A third factor was DoC's clear mandate, which had invested its new employees with a missionary-like sense of purpose. I noted in my analysis of the Black Head dispute that the conservation mandate acted to buffer the Department from the maintenance role of the state. The result was that the staff of the Whanganui conservancy (although with the support of head office and the Minister) were able to pursue their goals on the Whanganui question in a manner that would in all likelihood not have been possible in later years.²³ Finally, the 'entrepreneurial' role of key individuals within the organisation was not confined to the private actors, and the indomitable commitment of John Ombler and his conservancy staff was pivotal in DoC's participation.

The Catchment Board's statutory role did not alter in the 1988 review – i.e. to administer and adjudicate the flow setting process – other than that it had the final say instead of NWASCA which had by that stage been disbanded. However the way it gave effect to its powers did change. In response to the greater public interest and importance placed in the flows issue, the Board went to great lengths to conduct an open, thorough, and impartial process. In doing this the Board and its special Tribunal were acting entirely consistently with the requirement that the state allow equal access to power and be responsive to justified demands. There is no evidence to suggest that this was an ideological sop (i.e. the ideological mechanisms mentioned in 5.3(iv)) – indeed, that the Catchment Board's approach was genuine was borne out in their decision, which represented a significant material accommodation towards the demands of environmental/Maori/regional interests (compared to what had existed prior to the decision).

The final phase is that of the legal appeals. The Planning Tribunal, and later High Court, replaced the Catchment Board in controlling the process and in adjudicating the outcome. The judicial articulation of the legitimisation role differed somewhat from the Catchment Board. While all those who had previously made a submission on the matter retained the right to be heard in the Planning Tribunal hearing, the juridical context – for example, its formality, emphasis upon expert evidence, and the actual and potential matter of costs – acted to deter participation.²⁴ Hence the withdrawal of Forest and Bird from proceedings. Thus, as I noted in the last chapter, the process was far less inclusive and democratic, although not necessarily less legitimate because of this. Legal legitimisation is strongly dependent upon the operation of negative right.

The legal appeals increased DoC's role in the legitimisation process. In late 1990, Denis Marshall, Minister of Conservation in the newly elected National Government, openly criticised Electricorp's decision to go to the High Court. The Department would actively oppose Electricorp in any appeal proceedings. He then went on to state that the "Department is representing many individuals and organisations that cannot afford the high legal costs involved".²⁵ As the framework for accommodation tended towards the operation of negative right, then DoC's articulation of positive right became even more critical.

The Planning Tribunal decision moderated the concessions made by the Catchment Board in 1988. It would be overly simplistic to attribute that movement solely, or even greatly, to the courts' emphasis upon negative right. But it was undoubtedly the case that the Catchment Board

²³ John Ombler (District Conservator, Whanganui), 27 July 1998, Personal Interview, Wellington.

²⁴ Although standing in the High Court appeals was dependent upon participation in the Planning Tribunal hearing.

²⁵ Denis Marshall (Minister of Conservation), 30 November 1990, Press Release: "Whanganui River Appeal Opposed".

Tribunal (which undertook all of its considerations within the Whanganui region, and drew upon the volumes of written submissions as well as the oral presentations) placed far more emphasis upon regional demands, and hence upon positive Right, and that resulted in the retention of greater flows for in-stream needs.

Finally, in summarising the operation of the legitimisation function it is useful to make some limited comparisons with the Black Head dispute. In the Black Head controversy the participation of DoC was crucial to the putative success of the conservation case. Prior to the Department's intervention, and their tactical threat of legal sanctions, there had been little chance of any meaningful negotiated settlement. This was mostly due to the expansive bundle of property and other use rights held by the quarry company. Other than moral suasion and public pressure – hitherto ineffective – the legislation administered by the Department offered the only real leverage. So, it was also a case of the state opening itself to, and accommodating, non-capitalist interests. Indeed, the Black Head issue was a clearer case of the state actually responding *directly* to struggle than the Whanganui conflict, for in the WRMF dispute DoC's involvement seemed to stem more from its own institutional agenda – an *indirect* response to wider historical struggle. But the role of DoC in the two disputes diverged in their subsequent handling of their cases. In the Black Head dispute DoC proceeded cautiously, and ultimately strove to portray itself as a moderate and reasonable bargaining agent compared to the independent environmentalists.²⁶ Also, there was a strong sense of its legitimacy deriving from the fact that it represented the broader public interest. But there was also a sense that the DoC decision-makers did not want to engage in an open conflict with an important local company (completely private as opposed to an SOE). In the WRMF dispute DoC pursued its case as vigorously as possible. While the Department was unable to adopt the kind of maverick strategies adopted by Chapple and others, they remained uncompromising in the pursuit of their goals.

The concept of a legitimisation function does usefully explain some of the overall dynamic or pattern of the dispute. Most notably through the failure of the state to legitimise the project in its early stages, the subsequent surfacing and development of dormant concerns, and lastly, the whole thrust and importance of the Department of Conservation within the conflict.

13.3.(v) *The Strategic Picture*

Without doubt, the four relational principles of Offe's political schema did operate at various levels throughout the Whanganui dispute. The exclusion principle does help explain the pressure upon the state to divest itself of control (and ultimately ownership) of electricity generation and transmission. It is also valuable because it emphasises how the dispute pivoted around the wider structural reform process – a theme that resonated throughout the rest of the analysis. The dependency relationship was more difficult, in that the principle describes a simple but critical relationship between the state and capital. That simple relation certainly operated throughout the dispute process, but in terms of explanation it is of greatest significance because it logically underpins the maintenance, and to some extent the legitimisation, functions. It is also underpins some of the more specific mechanisms of business dominance discussed next. It is because of this that I depicted it as a secondary or 'deep' structural mechanism. Two patterns of maintenance were described – a highly interventionist period characterised by corporatist decision-making and

²⁶ Although in the Black Head dispute this cautionary approach was partially explained by the limited legal options.

accommodation, and a subsequent withdrawal of the state from organising production. I then argued that this transition was of fundamental importance in explaining the genesis, processes and outcomes of the dispute. Finally, the legitimisation dynamic did stand in the posited synergetic-yet-antagonistic relation with the maintenance function. This was most obvious in the way the maintenance role drove the construction of the scheme creating a crisis or 'deficit' of legitimacy. That deficit subsequently led, in great part, to the dispute. But also, it was the transformed articulation of the maintenance role from the mid-1980s that opened up a space for that legitimisation to occur. In summary, these four principles are of significant value in explaining the overall pattern of the conflict, but they are also assumed to underpin the mechanisms of dominance discussed next.

13.4. Mechanisms of Business Dominance

I turn now to the more specific mechanisms of business dominance. In doing this I focus only upon Electricorp, for as I concluded in 13.3.(i) the NZED cannot be considered as a business enterprise in the context of this framework.

13.4.(i) *The Business Sanction*

The business sanction is the strategic leverage that fractions of capital derive from the potential cessation, translocation, reduction, or even withholding of future, investment and production, within a given geo-historical context. It is a mechanism that operates on a continuum from overt and deliberate action to subconscious structures of in-action or constraint. Also, it is premised upon businesses *willingness and capacity to act* when their interests are threatened.

This mechanism worked on two levels in the Whanganui conflict. The first level was the general and underlying one whereby the scope of any environmental initiative may be severely limited if the program is considered to pose a general threat to the conditions of accumulation. On this account, most if not all, of the arguments/advocacy against diversion, constituted threats to Electricorp's profitability. Electricorp's argument throughout was that any decrease in the water available for generation would result in economic costs that would be borne by the nation as a whole. The greater the loss – the greater the economic cost to the nation. It was this simple argument that underpinned Electricorp's case within the balancing process, and indeed, it can be said to have largely underpinned the substantive outcome where Electricorp managed to retain the use of the greatest portion of headwater flows.

The second level is the more strategic or pro-active question of Electricorp's willingness and capacity to act when threatened. This is really the essence of the business sanction as depicted in the analytical framework. Possibly the earliest example was during the water rights campaign, when Corporation staff argued that they "expected the water right to be transferred – to assume otherwise is to assume Electricorp can't become a state owned enterprise".²⁷ On the face of it this statement was true (it needed water rights to generate power) the real issue was always about the *nature* of the bundle of use rights and the concomitant obligations that would apply. To the extent that the Corporation staff were overstating and oversimplifying the cause, there was an implied sanction. But given that the government subsequently required Electricorp to apply for new water

²⁷ Ian Johnstone (North Island Hydro Group Environmental Manager, Electricorp) quoted in *The Dominion* 19 November 1987.

rights across its entire generation system, the Corporation cannot be seen to have succeeded in this instance.

There was also an element of this type of sanction in the way the Corporation consistently exaggerated its arguments throughout the conflict. First of all, they overstated the economic implications of any reduction in flow levels. By constantly warning of large electricity price increases they suggested a sanction against power consumers. Another realm of argument was with regard to environmental costs. According to Electricorp, the loss of hydro-production would lead to greatly increased thermal generation and associated green-house gas emissions (indeed there was even scaremongering about nuclear generation) – an *environmental* sanction (note the environmental sanction in the Black Head case (9.4.(i))). Once again, this did not clearly benefit the Corporation because such claims were systematically tested, and in most cases rejected or attenuated, in the adjudication process (see 13.4.(iv)). But the point here is that while all parties to the conflict overstated their arguments in some way or another, Electricorp was the *only* actor that retained the *apparent* capacity to carry out those threats. They could, for example, potentially decide what forms of generation would be used, or what prices charged.

One final example was the disturbing matter of Electricorp's influence upon DoC witnesses. This happened twice, and on both occasions it operated through the Corporation inferring a conflict of interest, or alternatively, by simply relying on the consultants' (scientists and engineers) fear of losing the Corporation's business. This exercise of power was broadly analogous to the job blackmail/capital strike mechanisms – it was predicated upon Electricorp's overwhelming market power.

So while Electricorp's economic interests established apparent 'limits to the possible' within the wider decision-making process, the Corporation was constrained in its ability to actively *impose* sanctions upon society. At least two strands of argument can be gathered to explain this. The first strand relates to the basic proposition that the business sanction operates through the spatial transfer of capital, and is especially reliant upon the relative mobility of capital compared to ecosystems or human communities. In this case, there was no credible threat that could be made. The TPD was already constructed, and moreover, it was operating as part of an *integrated* generation system. Even if the Corporation had lost all of the WD flows, that would not necessarily have meant that the TPD would cease to function. Moreover, any subsequent reduction in generation capacity or output would have to be replaced by the Corporation itself as monopoly generator. So there was no question of losses in jobs or investment, or of capital flight out of New Zealand. Indeed, the construction of new generation capacity or the utilisation of the more labour intensive thermal capacity may have required *greater* investment or employment opportunities. A second strand of argument is that any consequent increase in generation costs would have been spread across *all* electricity consumers – and as I observed in Chapter Eleven while the immediate cost to Electricorp amounted to millions of dollars, the costs to the individual consumer were nominal. This second argument can also be applied to the underlying level noted above – thus vitiating that argument also. One other factor that could be made here is that as a state owned enterprise, and as a monopoly (that could not legitimise its actions by reference to wider market forces), the Corporation was also politically constrained in the types of threats or suggestions that it could make.

In summary, the dependency and maintenance dynamics operated at a deep level to make decision-makers wary of the economic impacts of any decisions and this probably shaped the

substantive outcome. However, in this conflict the *strategic* exercise of the sanctioning mechanism was particularly limited in scope and effect.

13.4.(ii) *The Double Privilege of Private Property Ownership*

In the WRMF dispute the property rights structure was of far less causal significance than was the case in the Black Head conflict, where it was pivotal. To understand why this was so it is useful to return to the original argument. In Chapter Five I asserted that a private property regime confers a double privilege upon its owners. On the one hand, there is the internal logic of the private right – a privileged relation of power over the resource and over the rest of society – and on the other hand, there is an external structural political-economic bias that creates, sustains and legitimates this type of property rule. I shall relate each of these elements to the Whanganui case.

The first task here is to ascertain the status of the Corporation's water rights – did those use rights constitute the privileged *form* private property? An appropriate starting point is the historical treatment of water resources. Traditionally, at common law, flowing water was “said to be *publici juris* ('of public right') in the sense that it was public or common to all who had a right of access to it”.²⁸ This meant that water was not property as such until it had been appropriated.²⁹ While that basic principle endured throughout the period covered here, its effect had been gradually eroded by specific interventions authorised by statute, and overarching legislative regimes for managing water resources – in this case, the 1958 Order in Council and *Water Act* respectively. Those statutory mechanisms allowed the Crown to vest use rights in particular actors for particular purposes – in this case the open-ended right for Electricorp to take as much water as it wanted from the headwaters of the Whanganui River, subject only to natural flows and to existing agreements. In functional terms this was an expansive use right that is consistent with the above depiction of the private right (it allowed the Corporation to monopolise the resource and, *ipso facto*, exclude the rest of society from its use). But on closer inspection there are important differences between those water rights and the general form of private property.

The first and foremost distinction was that they conferred a right to use the water for a *specified* purpose, whereas one of the basic tenets of ownership (as described in 5.4.(ii)) is the right of the owner to “determine how that object shall be used and by whom”.³⁰ Granted, there will nearly always be some regulatory constraint upon a resource owner's discretion, but that is not the same as prescription. The difference lay in the degree of agency involved – Electricorp held a valuable but narrow right. A second distinguishing factor was that Electricorp's water right was held as part of the package of authorisations originally granted by the Order in Council. This meant that the water rights were not alienable from the larger bundle of rights that enabled the operation of the TPD. Moreover, any decision on the divestment of those rights would in all likelihood be a political one and not one for the Corporation itself. Thirdly, following the water rights campaign Electricorp was bound to apply for new water rights within five years. This imbued the water rights with a provisional character. Finally, one other aspect – not of itself subversive of the notion of the private right but when placed alongside the other qualifications does help explain the special character of the Corporation's entitlements – was that the Corporation

²⁸ F. Brookfield, 1997, *The Laws of New Zealand: Water* Butterworths, Wellington, p. 45. In that context the key issue was who, in fact, had access to the water in the first place.

²⁹ *Ibid.*, pp. 45-53.

³⁰ J. Waldron, 1988, *The Right to Private Property* Clarendon Press, Oxford, p. 39.

inherited the water rights at nominal, if any cost. The water was a factor of production but was not itself commodified. All of these factors together help describe the particular nature of the Corporation's water right. I believe that while this was a very valuable right for Electricorp it was definitely not as strong an entitlement as those rights over land that underpinned the Black Head conflict. While it granted certain privileges of use to the Corporation, it was not as strong when it came to the matter of the power to exclude the rest of society from the control of that resource. There was still a sense of the principle of *publico juris* that penetrated the whole matter of water rights – the recognition that water is of interest to many parties, if not society as a whole. This was borne out of the second level of privilege – the political-economic articulation of the right.

The issue of water rights was dealt with in two realms. The first was in regard to the *transfer* of rights to the new Corporation. I have already mentioned this, and will only reiterate here that in this transition, and in response to the public campaign and wider question of Treaty obligations, the state acted to constrain the (hitherto perpetual) right by requiring that the Corporation apply for new entitlements. There was no such opportunity for the state to constrain the legal rights of the developers in the Black Head conflict. But the most significant treatment of the issue of use rights in the Whanganui conflict was within the legal discourse; viz. the dispute over the status of the Corporation's water right in the setting of a minimum flow under S. 20 J of the *Water Act*. It was in that process that the dispute accorded with Knetsch's portrayal of resource conflict as "the extent to which a right is protected or accorded preference over another entitlement".³¹

Electricorp presented two main rights-based arguments throughout the conflict. In the first instance it asserted that its use rights were inviolate³², and that because of this decision-makers could not establish any minimum flow regime that constrained their water right (the NZED had argued this, unsuccessfully, in 1982). In the second instance they set out a fall-back position, where they argued that in establishing a minimum flow regime, Electricorp's prior use rights must be accorded primacy within the balancing process. As I recorded in Chapter Twelve, the Catchment Board Tribunal, Planning Tribunal and High Court all subsequently dismissed those arguments, thus enabling the establishment of an acceptable minimum flow under S. 20 J, and in doing so acting to substantially constrain Electricorp's use right. No comparable legal mechanism was available to accommodate wider countervailing interests in the Black Head dispute.

In a sense, the original right of Electricorp to abstract virtually all available water from the river was analogous to Black Head Quarries' unfettered right to flatten the headland if it should so choose. But the historical treatment of water resources as of common interest (in response to wider statutory recognition of competing needs) resulted in a legal framework that could be used to curb those rights. Finally, it is crucial to recognise that while Judge Sheppard made it clear that the existing use right would not be accorded primacy in the balancing process, this does not mean that it wasn't of great importance within that calculus. There is no way of distilling the extent of that influence, but it still remained that Electricorp retained access to by far the greatest portion of flows.

³¹ J. Knetsch, 1983, *Property Rights and Compensation: Compulsory Acquisition and Other Losses* Butterworths, Canada, p.2.

³² Specifically, that S. 24 D (the section designed to give effect to minimum flow regimes) could not be used to vary conditions on water rights.

13.4.(iii) *The Unequal Distribution of Resources*

Charles Lindblom observed that business advocates enjoy a triple advantage over other civil actors in polyarchal politics; “extraordinary sources of funds, organisations at the ready, and special access to government”.³³ The task here is on the one hand, to broadly identify the distribution of resources in each of Lindblom’s categories as they applied to the Whanganui conflict, and on the other hand, to ascertain where possible, just how those distributions affected the strategic course of the dispute. While my focus is upon the nature and use of the resources possessed by Electricorp, to speak of unequal resources is, perforce, to speak in relative terms, and hence my review covers the other main advocates.

First, some general statistics. At the height of the dispute in 1989 Electricorp owned assets worth \$7,311 m. Using those assets it sold \$1,434 m of electricity, making a profit (after tax and extraordinary expenses) of \$373 m, which amounted to an approximate return of 12 percent on the funds employed.³⁴ It had a total staff of 3876.³⁵ A number of those staff were employed both in Wellington and in its group offices (such as the North Island hydro-group in Hamilton) for the specific purposes of dealing with both environmental and legal matters. In terms of the Corporation’s political connections, while it was given a fairly long rein on operational matters, its management was in constant communication with its shareholding ministers, with a wide range of government agencies, and with other corporate business actors and organisations. I turn next to the issue of how Electricorp mobilised its resources in the dispute.

As I described in the previous chapter, Electricorp was slow to realise either the immediate or long-term significance of the nascent review process. Its officials had been roused by the parallel water rights campaign and their initial response was primarily at the political level in Wellington. Few organisational resources were needed through 1987, with the environmental manager of the North Island hydro group handling the issue. The only notable expenditure was incurred through the commissioning of a public relations strategy – which itself came to nothing. It was only in the early months of 1988 that Corporation personnel realised that they needed to engage in the review process, that DoC *et al* were a long way down the track in their preparations, and that to combat that threat they would have to mobilise the most effective resources at their disposal. This mostly meant money.

Electricorp’s pattern of expenditure was greatly influenced by the type of process already under way. The *Water Act* was not specific about this question, and so it was largely up to the Catchment Board to establish the decision-making format. That the dispute was, from this point onwards, largely confined to quasi-judicial and judicial contexts, is of absolute relevance vis-à-vis the resource question. Put simply, litigation is expensive in most substantive arenas, but is especially so with regard to environmental matters. Their interdisciplinary character, with multiple languages of value, wide technical discourses, problems of verification in the context of risk and uncertainty, and the need for recondite knowledge on substantive and procedural matters, all comes at considerable cost. This instantly gave the wealthy Corporation a considerable advantage over the other participants. For the Corporation the transaction costs of litigation paled in comparison to their substantive (financial) interest in the flow levels. The most striking

³³ C. Lindblom, 1977, *Politics and Markets* Basic Books, New York, pp. 193–4.

³⁴ Electricity Corporation of New Zealand, 1993, *Annual Report 1992/3* pp. 26–9. This was a solid return; neither a poor nor remarkable result.

manifestation of this was that it was cheaper for the Corporation to engage in perpetual litigation as long as it delayed the implementation of either the Catchment Board or Planning Tribunal regimes. No other actor in the conflict was in a similar position. Most of the in-stream advocates were not essentially motivated by commodified values, and where they were partially or wholly motivated by financial questions the sums involved were insignificant in comparison to the perceived and real costs of litigation.

Electricorp was quick to exploit this financial advantage. Its strategy from the written submissions stage of the 1988 review onwards, was to throw money at the problem. Like any other party it set out to present the strongest case it could, but in doing so Electricorp also strove to *control* the process as much as possible. The estimated \$7-15 m that the Corporation spent on the process went on exorbitant legal fees, a host of scientists and other expert witnesses (including research, analysis, collation of material, and appearances before the Tribunals), and various background/administrative tasks. The Corporation's strategy was to overwhelm the opposition and neutralise the countervailing arguments with masses of highly specialised material – for example, the last minute submission of 3500 pages of evidence in the week prior to the commencement of the Planning Tribunal hearing. It also endeavoured to draw the proceedings out over a far longer period than had previously been envisaged. Such tactics were enabled by the resources possessed by the Corporation (and its aggressive approach to the question), and they also acted to further compound the disparities that existed – as the length of time stretched out the more difficult it was for those such as Chapple or the Trust Board to continue with their cases, further exaggerating Electricorp's relative advantage.

While the Corporation used its money to hire a team of specialists to construct and advocate their case, its existing organisational resources were also mobilised to great effect: First, through the coordination and administration of the case by simply drawing upon the established institutional structure; Secondly, by providing a good deal of the institutional and specialist knowledge integral to their argument (a significant number of Electricorp engineers, economists and various senior managers provided and presented evidence in the various fora); And thirdly, the juridical pathway channelled the conflict and limited the use of broader political strategies. The Corporation did conduct a public relations campaign through advertising and the distribution of 'educational' materials, but while they included images of the TPD diversions, the *sub judice* rule meant they had to restrict themselves to a general branding exercise – 'clean and green hydro-electricity' – rather than direct advocacy on the flows issue. Another tactic that proved less effective in these circumstances was political lobbying. This was partially because of the reconfigured maintenance role discussed earlier, where the state deliberately stood at arms length from the operations of the SOE (the flows issue was defined as an operational matter).³⁶ But it was mostly because from an early stage the process was locked into a formal and ultimately juridical decision-making framework. This meant there was little scope for political intervention despite the strong linkages between the Corporation executives, government officials and politicians.

³⁵ *Ibid.*, p. 32.

³⁶ This is not to suggest that there wasn't an ongoing dialogue between the senior Electricorp officials and directors, and various senior public servants and politicians – there certainly was. But the inertia of the litigation process, the unstinting commitment of the Minister of Conservation and the Department to the issue, and public sympathy for environmental issues, all served to limit the scope of political intervention or conciliation.

For the purposes of comparison three questions arise; what resources were possessed by the in-stream advocates, how did Electricorp's mobilisation of its vast resources affect those actors, and how did they, in turn, utilise their own resources to pursue their goals? Once again, I will restrict my observations to the three main in-stream advocates. The Trust Board, first of all, devoted most of its *financial* expenditure³⁷ to the retention of quality legal representation throughout the three phases of the review. Their witness (and wider evidentiary) costs were minimised because they maintained a focus upon their core arguments – their historical relationship with the river – which meant that they were primarily dependent upon knowledge possessed by kaumatua and other tribal members. A handful of their witnesses were from beyond the region, but their costs were relatively small. A significant factor here was that their arguments were not (on the whole) framed in scientific terms, and hence avoided the costs inherent in such discourse. Nevertheless, participation in the dispute was an extraordinary financial burden upon the river tribes' resources. In terms of institutional capacity, the Trust Board did benefit from a small permanent *organisation* that was able to provide some administrative services, and great strength was derived from the tribal support network with many members attending the lengthy hearings, but most of the coordination was done by the legal team itself. The tribes' *political* resources were minimal in this context. Indeed, the Catchment Board hearings were the first time the Board members had felt included in a decision about the management of the river³⁸ – this was testament to the fact that Whanganui Maori had long been politically marginalised.

The Corporation's use of its vast resources made the Board's participation in the proceedings more difficult by, on the one hand, increasing the costs of participation (by drawing out the hearings), and on the other hand by widening and complicating the discourse (through the production of expansive technical evidence). The Board's basic response was to focus upon the advocacy of its own arguments rather than the scrutiny of Electricorp's, and as a consequence their respective arguments did not meet head on. As to the issue of costs, this simply made the tribes' sacrifice even greater. As I discussed in Chapter Eleven, Maori participation in the conflict was predicated upon a profound connection between their people and the river. This resulted in a commitment to participation at almost any price.

The Flows Coalition/Flows Alliance was even more constrained by its lack of resources. It was an issue specific coalition and thus possessed no resources – financial, organisational or political – prior to the commencement of the controversy. In terms of finance, the Coalition carried out direct fundraising efforts, but most of the total expenditure of \$43,000 came from the contributions of member organisations (for the most part Forest and Bird which effectively underwrote the campaign) and grants such as the \$13,000 received from the Taumarunui Borough Council. Some of the money was used to pay for a consultants report in the Catchment Board hearing, but the balance went on Chapple's basic costs of attending the hearings throughout (travel, accommodation, photocopying/general administration – but not for his services or recompense for lost earnings), and to pay the expenses of their handful of witnesses. In the initial stages of the review process the Coalition could pursue relatively low cost strategies such as through media campaigns (facilitated by a receptive media) and direct political lobbying, but when the process started to focus upon 'probative discourses', and became formalised, the potential and

³⁷ The \$200,000+. See 12.3.(iv).

³⁸ See 12.2.(iv).

actual costs of participation escalated dramatically. The Coalition was only able to present its legal case on a shoestring budget due to: Chapple acting as a lay-advocate; The unstinting commitment and sacrifice of Chapple, his wife Brenda and a small number of core members. And the generosity of unpaid witnesses and those who gave free advice on legal, scientific and other aspects of their case.

I will concentrate upon the Coalition's organisation in the later discussion on collective action. For the moment it will suffice to note that the core members of the Coalition had to work hard to enlist and maintain the support of a wide range of parties and individuals. Much of that support was either moral or symbolic, and the brunt of the work fell upon the core group of volunteers. The notable exception was the close connection between Chapple and the Forest and Bird national organisation.

The Coalition's political resources were probably better on paper than its financial or organisational capacities. There was its solid regional support base which was buttressed at various points in its campaign by all of the local bodies within the region, and by national politicians whose electorates fell within or were contiguous with the Whanganui region. There were also its crucial links with the national environmental movement. In addition, it benefited from a strong groundswell of public opinion in its favour – or at least opposition to the perceived environmental excesses of a monopoly actor. All of this contributed to the victory on the issue of water rights, however in the same way that it affected the political manoeuvres of the Corporation, the transition to a juridical process limited the options for political solutions and influence. But probably the most effective articulation of the Coalition's political support was that it helped create and maintain the political will of the Minister of Conservation to vigorously pursue the matter.

As with the Trust Board, Electricorp's deployment of its resources made the Coalition's continued participation increasingly difficult over time. The most obvious example here is the crucial withdrawal of Forest and Bird from the Planning Tribunal appeal, largely on the basis of actual and potential costs. The Coalition constantly sought to compensate for its lack of comparative resources by adopting low cost/high profile strategies. The legal format made that approach more difficult, and in the final analysis it came down to the same type of community commitment and sacrifice that underpinned the Maori case. Lastly, to counter their lack of resources in the face of overwhelming opposition, the Coalition concentrated its case almost wholly on the task of providing a regional voice, leaving it up to DoC to present the conservation case and to counter the analyses of Electricorp experts. As time went on the participation of DoC was more and more essential for the general in-stream case.

It was DoC – a state and not a civil actor – that possessed more resources than any other in-stream advocate. As a state agency DoC sits outside Lindblom's business/civil actor divide, however because the Department functioned in a distinct advocacy role that brought it into *direct* conflict with the Corporation (business), its resource holdings are relevant here. In 1989 DoC had a national staff of around 1600, and a total expenditure of \$119.7 m.³⁹ With these resources it had to manage a conservation estate of 5 million hectares or nearly 19 percent of New Zealand's

³⁹ Of that total \$2.2 m and \$3 m, were spent on legal protection and statutory advocacy respectively. Report of the Department of Conservation (Te Papa Atawhai) for the year ended 30 June 1990, *Appendices to the Journals of the House of Representatives* C. 13, p. 45.

landmass in addition to 13,000 km of coastline and many offshore islands.⁴⁰ Furthermore, its advocacy role applied not only to the whole of New Zealand but also to the Sub-antarctic Islands, Ross Dependency, and to various international initiatives.⁴¹ Its obligations were virtually unlimited, and the pool of funds it could draw upon for issues such as the Whanganui dispute was not only relatively small (compared to Electricorp), but consumed resources that could be used to great benefit elsewhere. Nevertheless, having decided to pursue the minimum flows case, the Department did devote significant financial, organisational (coordination and vast technical expertise), and political resources to the issue.

As I noted in the previous chapter, by the end of the Planning Tribunal hearing the Department had spent \$625,000 (excluding many internal costs), and if one adds the cost of representation in the High Court, it is reasonable to conclude that the final sum was in the region of \$700,000.⁴² A large portion of that expenditure was in legal fees, with the remainder largely spent on witness costs and the research process. The fact that the Catchment Board process only cost the Department \$40,000 illustrates the added costs of litigation. But in comparison with Electricorp's outlay, even the Department's budget seemed small. This did not prevent DoC from mounting a very effective case across the spectrum of substantive issues – its ability to do so was largely due to its own institutional resources.

The organisational resources were crucial on a number of levels. First, the Whanganui Conservancy staff were pivotal in providing the issue with the type of critical mass necessary to justify the devotion of substantial resources to the issue.⁴³ They managed the process and maintained the momentum throughout the dispute, and they did so with great conviction. Secondly, the national organisation was essential for its wide range of expertise in areas such as ecology/conservation science and management, recreational management, and landscape assessment. A number of its in-house specialists presented not only their own evidence, but were scrutinised by and in turn scrutinised and rebutted the evidence of a range of highly specialised Electricorp witnesses – some of whom were engaged from overseas at great expense.

Finally, the Department was of course vertically integrated at all level of government, and hence was able to put its case behind the scenes. However, as with the other actors, the juridical form of the dispute limited the scope for political intervention or accommodation (although its very involvement in the dispute was an example of political intervention).

Electricorp's aggressive approach and deployment of resources affected DoC in the same way as it did the other parties, by increasing the costs of participation and making the process more complicated. But unlike the other actors DoC was sufficiently well resourced to meet the Corporation on a relatively equal footing. The Department was the only actor (other than Electricorp) capable of presenting rigorous evidence across the whole spectrum of substantive questions and most crucially, it was the only actor that systematically tested the Corporation's argument. The Department's participation was absolutely essential in gaining the increased

⁴⁰ Department of Statistics, 1989, *New Zealand Official Yearbook* Government Printer, Wellington.

⁴¹ S. 6 of the *Conservation Act 1987*.

⁴² Assuming that DoC's bill for the High Court hearing was comparable with the Regional Council's – which was \$67,000 for the services of its two counsel.

⁴³ In an interview John Ombler (then District Conservator, Whanganui) observed that the Department tends to "pick its fights", and having done so, will find the resources necessary to competently advocate its case. 27 July 1998, Personal Interview, Wellington.

minimum flows. As a caveat here I would like to reiterate that while state actors do not fit comfortably within Lindblom's schema, it is legitimate to include DoC here because it took a strongly partisan line in opposing Electriccorp.

Overall, Electriccorp as an actor, and in its role in the dispute, conformed to Lindblom's portrayal of corporate capital as possessing superior financial, organisational and political resources compared to other actors in civil society. Without a doubt the possession of those resources (mostly its financial advantage) greatly benefited the Corporation in its advocacy (especially in the juridical context), and hence in its success in retaining the greatest portion of flows for hydro-production. The only other actor with comparable resources (and even then there was a distinct asymmetry in the Corporation's favour) was DoC – a state rather than civil actor. It is difficult to see how the Flows Coalition and the Trust Board could have mounted a full defence of the river if DoC had not participated. To conclude, business was greatly privileged in terms of its possession of superior resources.

13.4.(iv) *The Power to Define Reality and the Distortion of Communicative Processes*

In Chapter Five I noted that the empirical investigation of the issue of power and discourse must proceed on two fronts: First of all the systematic distortion of communication must be examined by means of dialectical explanations (for example, by identifying where possible, the disjuncture between commonly perceived and 'real' explanations); Secondly, by examining the specific communicative strategies used by business in a particular context. I will deal with each of these questions in turn.

In the Black Head conflict the quarry company was clearly able to systematically 'define reality'. This was mainly by controlling the economic valuations that underlay the decision-making – in that case *bargaining* – process. This conclusion was reached through a dialectical analysis whereby the accepted valuations were compared to the 'real' discounted costs. The disjuncture between the two sets of figures was taken to be the product of business power. In the Whanganui conflict there was no immediately apparent equivalent disjuncture. It is useful to comprehend why this was the case – especially given that the Corporation, like Black Head Quarries Ltd, also utilised distorted valuations.

In the final pages of Chapter Twelve I observed that the overall substantive outcome of the dispute, while a compromise position, still chiefly favoured the existing commercial use of the water. Moreover, the parties involved in the dispute perceived the outcome to be just so, and their subsequent responses while not incompatible with this were made on the basis of prior flow levels, assessments of the distribution of power and subsequent expectations. Thus the Flows Coalition did not achieve anywhere near what they had been advocating, but in the face of overwhelming opposition they saw it as a victory. To frame this in terms of the present question; business wielded considerable influence to its ultimate benefit but this did not result in any apparent false consciousness. This was not the case in the Black Head dispute. Two interconnected factors explain the difference between the two disputes. The first is the nature of the decision process. In the Black Head dispute an informal bargaining process prevailed. In such a process there is no requirement for the systematic scrutiny of the parties' arguments, indeed, certain dissenting arguments may not even be presented if some parties are excluded from the process. By contrast, in the Whanganui dispute the inflated claims (of all parties) that appeared in

the early media exchanges were subsequently tempered within the juridical process. The Catchment Board hearing, and to a much greater degree, the Planning Tribunal hearing, involved the structured presentation and testing of arguments. Under those conditions 'false' or manipulative arguments would only tend to endure if no other party could assemble an argument against them. This is not to rule out the possibility for systematic distortion in that context. If, say, a conservationist does not possess the resources to research and mount an argument against a false assertion by a wealthy actor then that would certainly be the case. But in the Whanganui dispute (as I observed in the previous subsection) the participation of DoC was an essential buffer against those types of inequity. The second explanatory factor was that in the Black Head conflict the Company was – mainly due to the structure of rights – in a very powerful position, and could as a consequence choose to either accept or disregard *any* argument. It set out a grossly inflated price and dismissed dissenting analyses outright (viz. Dr Cullen's discounted figures). It was thus totally able to define reality in that context. Once again, Electricorp was in no such position, especially in so far as the tribunals and courts functioned as arbiters on matters of fact.

In my original discussion of power and discourse I referred to Sharon Beder's analysis of the 'new corporate activism', and in particular her list of broad communicative strategies utilised by big business in their confrontations with environmentalism. Four of the eight mechanisms listed by Beder were of some importance in the WRMF dispute, and I will make some brief comments about each.

The first tactic is that of the punitive lawsuit to deter environmental advocacy. Now while Electricorp's appeals to the Planning Tribunal and High Court were primarily responses to an unsatisfactory decision, its aggressive conduct in those hearings can be understood as a deliberate move to overwhelm and inflict costs upon the opposition. The Forest and Bird's withdrawal from proceedings is evidence that the Corporation's strategy was partially successful. The second tactic used in this dispute was the use of environmental PR. As I have already noted the initial PR strategy commissioned by the Corporation was of little value to the Corporation (see 12.2.(i)).⁴⁴ But as the dispute progressed towards the Planning Tribunal hearing and beyond, Electricorp's media relations became increasingly managed and strategic, and the Corporation deliberately set out to mitigate the damage that the Whanganui issue was doing to its wider corporate image.⁴⁵ This leads on to the third device which was to run advertising that branded electricity as a clean and green energy source, and the Corporation as a good corporate citizen. The last element that is worth mentioning here is with regard to the reporting of the issue in the media – which in this case was at odds with Beder's commentary on trends in environmental reportage. My limited survey of the newspaper coverage revealed a marked preference (particularly in the Whanganui region) towards the in-stream arguments. The high profile Frontline documentary on the issue was also very biased against the Corporation. Some likely reasons for this being the regional element, the astute media campaign run by the conservationists, and an apparent editorial responsiveness to 'green' issues. It also seems reasonable to suggest that much of the general attitude towards the Corporation was a symptom of public distrust and antipathy towards the aggressive approach of a

⁴⁴ Although the consultant's recommendations were wholly consistent with the types of strategies observed by Beder. See: S. Beder, 1997, *Global Spin: The Corporate Assault on the Environment* Scribe Publications, Melbourne, Ch. 8.

⁴⁵ They utilised tactics mentioned by Beder such as media releases, the distribution of educational resources to schools and other institutions, and the production of promotional videos.

powerful monopoly (and significantly state owned) actor against local interests – the David and Goliath aspect.

Electricorp was not able to systematically *distort* reality in the Whanganui dispute. All of the actors utilised manipulative arguments, but the juridical process limited the success of those attempts. This was due to the interrogatory procedure and the fact that the Tribunals and Judges got to decide on the facts rather than a dominant actor as was the case in the Black Head conflict. But the Corporation certainly did control the discourse in other ways. Mainly through its use of resources to expand and complicate the substantive arguments, and through its ability to make it more difficult for other actors to advocate their cases. The worst effects of such influence were curtailed by DoC's ongoing participation in the conflict. But finally to reiterate a point made earlier, the very fact that the in-stream advocates perceived the outcome as a success – when over 80 percent of headwater flows continued to be abstracted – was itself a product of Electricorp's fundamental dominance within the discourse. It was at that basic contextual level that business was able to define reality and the limits of the possible.

13.4.(v) *The Dilemma of Collective Action*

Like the Black Head analysis in Chapter Nine, the starting point for my investigation of collective action must (following Olson's schema) lie with the basic distinction between the private good/interest and the public or collective good/interest. Once again, a general connection can be made between certain groups and the type of goods or interests that they seek. On the one hand, Electricorp's primary concern was with the production of commodities. Thus in its collective efforts it was, at least in the first instance, motivated by private interests. On the other hand, the main in-stream advocates were essentially concerned, again in the first instance, with collective or public interests (there were exceptions such as the tourist operators). This is consistent with the original assertion that the locus of environmental conflict can be commonly seen as a conflict between interests in these two types of goods. The next step is to ascertain whether the incentive/disincentive structures that attend each type of good (in theory) actually worked to privilege business in its collective pursuit of its interests.

Before I do so it is useful to recall that Olson's model works from the basic assumption that collective action involves some costs, whether in time, money or labour (see 5.3.(v)). He argues that no 'rational' individual will assume these costs unless two conditions are met; (i) that the likely benefits from participation exceed the benefits that would accrue without participation, and (ii) that the benefits exceed the costs of membership and participation.⁴⁶

The *form* of business actor in the dispute was the individual firm rather than the business association. But the capitalist firm acts both as an *individual* actor (the corporate form) and as a *collective* actor. For example, it is as an artificial person that the corporation is able to own *private* property. But as a social enterprise it can be viewed as a group of people working towards a collective goal – viz. the profitable accumulation of capital. The participation of Electricorp in the minimum flows conflict must be viewed on both those levels. First of all, the Corporation participated as a 'rational individual' (self-maximising). It is on this level that the 'private' benefits/costs of any substantive outcome would accrue to the Corporation; the Planning

⁴⁶ M. Olson, 1965, *The Logic of Collective Action: Public Goods and the Theory of Groups* Harvard University Press, Cambridge Ma, pp. 1-52.

Tribunal decision directly affected the corporate entity first, and only affected the individual employee in the most indirect terms. As I have repeated throughout the study, the financial rewards to Electricorp of participating, and indeed, the costs of not participating, were very great. Secondly, there were the permanent and temporary employees who participated in some part in furthering the Corporation's collective goals in the conflict (at the broadest level this involved *all* Electricorp staff). The contributions of all of these individuals involved varying levels of sacrifice – time and labour, but *not* money. Some Corporation staff, legal counsel, and consultants devoted great amounts of time to the issue. However, the financial benefits of participation were considerable (for some very large indeed), and certainly outweighed any financial costs. So the participation of the individual representatives of Electricorp was premised upon the organisation's ability to dispense significant selective benefits. Those benefits, however, derived from the Corporation's general resources and interests and not just those streams of private benefits deriving from the flows issue. Olson's model largely, if not wholly, explains the logic of Electricorp's collective action within the conflict.

The main civil collective actors were the Maori Trust Board and the Flows Coalition and I will discuss each of these in turn. I have already described the types of resources that the Maori Trust Board devoted to the issue (13.4.(iii)). The Trust Board benefited from an existing organisational structure – with a large support network – and the capacity to fund (even if at great sacrifice) its legal campaign. These resources derived from the Board's role in the day to day management of the river tribes' affairs. Those responsibilities involved the management of government and other revenues, tribal assets, and the prosecution of Treaty claims', all of which actually or potentially involved the ability to distribute benefits to tribal members, whether collectively or individually. Olson's model would explain in some part the existence of the permanent structure that enabled it to act collectively on a specific issue.⁴⁷ It would also explain the participation of its legal counsel (in the same way as Electricorp's counsel). But it cannot explain the ongoing commitment and sacrifice expended by the Board and tribal membership on the flows issue. Whanganui Maori were essentially motivated by *collective* goals founded upon their close relationship with the river. The rational actor model does not extend to such complex motivations.

Likewise, the rational actor model can only partially explain participation within the Flows Coalition (because unlike the Trust Board it had no collective existence outside of the issue). But as with the Friends of Black Head Coalition, Olson's model is of some utility in explaining why people may *not* have participated. On paper the Coalition could count numerous organisations and individuals as supporters. But even though that support represented a significant and real opposition to the continued abstraction of water, the active membership was limited, indeed its *collective action* was driven by a handful of highly motivated personalities. This is consistent with the experience of the Friends of Black Head. That few people acted on the issue even though large numbers supported the cause could be explained by the fact that (i) selective benefits were not offered, (ii) membership was not compulsory, and (iii) that the costs of participation outweighed

⁴⁷ The Trust Board was not a traditional body, but rather, one set up by Parliament. It owed its most recent manifestation to the *Whanganui River Maori Trust Board Act 1988*. That Act set up the Whanganui Board for the purposes of the *Maori Trust Boards Act 1955*, which were essentially to manage its assets for the purposes of promoting the health, economic and social welfare, educational and vocational training, and other miscellaneous purposes. The 1988 Act also authorised the Board to negotiate claims on the tribes' behalf.

the immediate benefits (it is interesting to note that the core members of the Coalition mostly lived in the vicinity the river and could be expected to derive considerable direct – even if non-commodified – benefits from the restoration of natural flows).⁴⁸

But it is also useful to consider some of the pluralist explanations that I mentioned in 5.3.(v): There was indeed a *differentiation* of roles and hierarchies within the Coalition. The participation and membership of the many ‘nominal’ groups and individuals gave the organisation political power, but the restriction of decision-making to a core group enabled a dynamic and focused approach, and avoided coordination problems and the dilution or dissipation of energies on organisational matters; The core group functioned as entrepreneurs and risk-takers; The dedication of the core group to their goal, and their willingness to make sacrifices, were of paramount importance; They were able to call upon the voluntary contributions of professional agents, and moreover, Chapple proved particularly adept in the advocacy role – those skills were essential; The main form of patronage was in terms of the Coalition’s relationship with the Department of Conservation; And they were by definition a ‘coalition’. So while they had a large ‘individual’ membership by association they did not have to maintain such an organisation.

Finally, I will make a few brief comments on the Department of Conservation. As a collective actor the Department pursued a collective good. Like Electricorp and the Trust Board, DoC benefited from an existing organisation devoted to wider collective goals, and it was able to draw upon wider resources within the flows conflict. Given its considerable resources, and the relative weakness of the other in-stream advocates, DoC/s participation was crucial to the pursuit of the collective environmental goals. The benefits of its involvement were potentially high – and those benefits would in all likelihood not have accrued if DoC had not joined in. As for the involvement of the individual staff and consultants, like Electricorp, DoC was well able to dispense selective benefits – i.e. salaries, wages, fees, and non-monetary rewards. But as with the Trust Board and Flows Coalition the dedication of key individuals can only be explained by broader factors beyond the ‘rational actor’ model.

Olson’s model explains in large part the collective behaviour of the business actors.’ For the other actors it can offer no more than a partial explanation – although, conversely, it potentially explains why people *do not* actively participate in such endeavours. Other explanations, such as those suggested by pluralist writers, must be utilised to explain why people do participate, and how they are able to make substantial gains in the face of business power. But overall, by utilising Olson’s model in the context of the WRMF conflict it is possible to discern a very powerful structural mechanism at work. One that certainly privileged the Corporation in its ability to gain and exercise power through association.

13.5. Conclusion: Business Power and the WRMF Conflict

Because of the breadth of this chapter, I begin this conclusion by reviewing how each mechanism applied to the Whanganui conflict. I then move on to make some general observations about the explanatory power of the analytical framework in explaining the processes and outcomes of the Whanganui dispute.

⁴⁸ I am, here, reversing Olson’s prescriptions for mobilising collective action. See 5.3.(v).

Value-form. In Chapter Four I noted that value-form offers one means by which we can organise class analysis; viz., the study of business power in environmental conflict. As with the Black Head study, the value-form distinction between exchange/use-values, and more inclusively commodified/non-commodified values, was almost wholly in line with the division over the substantive question at the heart of the thesis. On the one hand, Electricorp can be classified and treated within the power analysis as a capitalist enterprise, and on the other hand, the in-stream advocates, where they were not acting as capitalists (which was almost exclusively apart from the tourist operators), can be classified in a residual sense as environmentalists/non-capitalists. This was the organising element that underpinned the power analysis. In the second element of the value discussion I observed that there was a *prima facie* connection between value-form and environmental harm. Namely, that Electricorp, motivated by the pursuit of exchange-value, was the primary cause of environmental harm. Moreover, I noted that elements of commodity valuation, such as the disconnection/abstraction mechanism, the way Electricorp externalised its environmental costs yet internalised the benefits, and the treatment of the natural resource as separate from its ecological context, were components of that destructive relationship. I did emphasise, however, that there were other socio-economic mechanisms at work in causing the environmental damage.

Offe's schema. The strategic imperatives theorised by Offe were of considerable value in explaining this conflict: First, the *exclusion* principle helps to explain the pressure upon the state to divest itself of the control (and ultimately ownership) of the electricity generation and transmission system. Moreover, it emphasises how the dispute pivoted within the wider neo-liberal structural reform process; Secondly, the *dependency* relation describes a simple but fundamental relation between the state and capital. It is of most significance because it logically underpins the maintenance, and to some extent, legitimisation, principles. But it is of less use in *directly* explaining the pattern of the conflict, and as with the Black Head conflict, I depicted it as a secondary or 'deep' structural mechanism; The third principle of *maintenance* explained much about the dispute at a general level. It largely explained the state's involvement in electricity production prior to 1986, and can be seen to have motivated the construction of the TPD, and in turn to explain the centralised and opaque nature of the original decision-making process. It can thus be seen as one fundamental cause of the dispute. I also pointed out that the maintenance role was articulated in a different fashion after 1986. Significantly, the withdrawal of the state from *direct* involvement in electricity supply decreased both the state's willingness and ability to actively intervene in defence of Electricorp despite their fiscal interest in the SOE; Finally, the legitimisation function also operated in that broad contextual way, and does complement the maintenance imperative in explaining the overall pattern of conflict. This was most apparent in the failure of the state to legitimise the project in the early years, the subsequent surfacing and development of dormant concerns, and lastly, the whole thrust and importance of DoC as an advocate for the in-stream case. In summary, Offe's strategic model of politics in advanced capitalist society is a broad contextual theory. Because the Whanganui dispute was indeed played out across a wide canvass, such a broad schema is of great value in understanding this particular conflict.

Mechanisms of business dominance. The five specific mechanisms of business dominance were of varied explanatory value: First, the *business sanction* operated on a most general level. That is, the dependency and maintenance dynamics probably operated at a basic

level to make decision-makers wary of the economic impacts of any decision on flow levels, and this may have shaped the substantive outcome. However, given its vast resources the Corporation was remarkably limited in its ability to inflict *strategic* sanctions even though it tried to do so at certain times. This was partly because it was constrained in its ability to transfer its investments away from either the region or the nation, and it was also because any economic costs that the Corporation passed on to society would have a nominal impact on the individual electricity consumer. There were, however, small-scale examples of this mechanism that were still serious, such as, for example, the implied pressure upon DoC witnesses. But overall, the mechanism was limited in scope and effect; Secondly, the *privilege of private property* was of less causal significance in the Whanganui dispute than it was in the Black Head conflict. There were two basic reasons for this – (i) the water right, while extremely valuable to the Corporation, was not as strong an entitlement as the quarry's use-rights, and (ii) in the Whanganui case there existed a countervailing legal mechanism in the form of the *Water Act*. But once again, the Company did retain over 80 percent of the headwater flows so it would be wrong to rule out the efficacy of the prior right within the Planning Tribunal's balancing process; Thirdly, there was the *unequal distribution of resources*. Overall, Electricorp conformed to Lindblom's portrayal of corporate capital as possessing superior financial, organisational and political resources compared to other actors in civil society. Without doubt the possession of these resources (mostly financial) greatly privileged the corporation in its advocacy (especially in the inherently expensive context of litigation), and hence in its success in retaining the greatest portion of flows for its use. The only other actor with comparable resources, and even then there was a marked asymmetry – was DoC – a state and not a civil actor. This underlined the importance of the Department's advocacy function for the protection of environmental values. The resource mechanism was probably the *primary* source of strategic power for Electricorp in the dispute; Fourthly, Electricorp was not able to systematically *define reality* in the fundamental way that Black Head Quarries did in the previous dispute. But the Corporation was able to *shape the discourse* in some important ways, for example, by making it more difficult for the other parties to articulate their cases. DoC's participation was again crucial in countering Electricorp's efforts to dominate. I would like to reiterate, however, that the very fact the in-stream advocates viewed the outcome as a success when Electricorp retained over 80 percent of flows, was itself a product of Electricorp's ability to shape the 'limits of the possible'; Finally, Olson's model of collective action explained, in large part, the collective behaviour of the Corporation. For the other actors it offered no more than a partial explanation (although it can explain why people did *not* actively participate). Yet by utilising Olson's model in the context of the WRMF conflict, it is possible to discern a very powerful mechanism at work. One that certainly privileged capital in its ability to gain and exercise power through association.

Before I draw together the threads of this case study I will touch upon the issue of the role of the courts. It is clear that the courts played an essential role in shaping the process and outcome of the WRMF dispute. The role of those institutions is of academic interest for many reasons; for example, the limits to comprehensive decision-making, or as a possible argument for ADR solutions. However, my interest is with the mechanisms of business power and dominance, and the role of the courts *as a state actor* raises a challenge in this context. Within the analysis in this chapter I have mentioned the courts in my discussion on the maintenance function (institutional

frameworks for regulating conflict), and it is clear that the functioning of the courts is integral to other aspects of maintenance such as enforcing contracts and upholding property rights. In the legitimacy discussion I touched upon the importance of negative right (by the framework of the law) as a source of legitimacy, and then in 13.4.(ii) there was the discussion of property rights. It is clear that the function of the courts vis-à-vis business power will require further investigation and would complement or supplement the collection of mechanisms that have been investigated in this thesis.

At the close of the previous Chapter I observed that Electricorp's substantive victory was relative rather than absolute. The in-stream/environmental interests did gain a great deal, but in aggregate the Corporation did far better. But the fact that Electricorp did lose the use of some flows at a significant financial cost, makes the Whanganui dispute intriguing in terms of the application of this framework. The private conservationists, Maori, and the Department of Conservation were together able to mount an effective challenge, albeit at great cost to those groups and individuals. This demonstrates that environmental actors can and do elicit substantial concessions in their collective efforts. However, very few examples of conservation advocacy involve the kind of deployment of resources that happened in the Whanganui issue. The involvement of the state as an advocate was crucial to the achievement of an increased minimum flow regime for the river. While it was noted in discussion that the Department picks its fights and then pursues them vigorously, DoC will only be able to do so in a limited number of cases because of resource and political constraints (ie. the maintenance role of the state will in many cases act to constrain the Department's advocacy). The reason why the in-stream advocates were able to extract this concession is further clarified when one considers the situation of the Corporation. On the face of it Electricorp was a formidable business actor. However, Electricorp's power in the dispute was reduced by their inheritance of the legitimation deficit, the reconfigured maintenance role that meant the state was reluctant to actively intervene in support of the commercial interests, their position as a monopoly with attendant legitimation problems, the weak form of private property present in the water right and the countervailing constraint of the Water Act, their inability to sanction, and the scrutiny of their arguments within the formalised decision-making process. All of these factors served to constrain the powers of the Corporation, *yet it still remained dominant*. Some of these issues I will enlarge upon in the general conclusion that follows.

General Conclusion

Business Dominance in Environmental Conflict

The purpose of this thesis is to better understand the phenomenon of business dominance in environmental conflict in advanced capitalist society. To investigate how, on the one hand, business values the world, and on the other hand, the way that power is derived from the ownership and control of commodity production. And, to investigate how these two elements together systematically subvert both the possibility of sustainable relationships with the natural world, and the ability of people to participate in decision-making in respect of their environments. The focus of the project is clear – *it is wholly concerned with the ability of business to dominate within environmental conflict, the exercise of this capacity, and the consequences of such dominance.*

I begin discussion here by reviewing the development of the argument over the course of the study. Following that I will turn to the essential question, and set out what I consider to be the key insights into business power that arise out of this project. In the third part I make some preliminary observations about the possible emancipatory consequences of this project. Finally, I draw these threads together in the final passage.

The Argument

I opened the thesis with the same statement of intent that I used to open this general conclusion. My methodological response to that question was to split the thesis into three broad parts; a preparatory section, the development of an analytical framework, and the empirical scrutiny of two in-depth historical case studies including the systematic application of the theory to that investigation. I will deal with each of these parts in turn.

The preparatory section performed a number of crucial functions; to explain and defend the purpose of the study and the approach taken, to provide a methodological foundation for the thesis, and to ground the project in the literature on business power and environmental conflict. These threads wound through the first three chapters. In Chapter One I began from the global perspective of the environmental problematique or crisis. I argued that the environmental disputes that form the empirical core of this thesis must be understood as both symptomatic and constitutive of wider destructive tendencies that ultimately give rise to that environmental crisis. I proceeded to examine the broad characteristics of that problematique and asserted that there arises a fundamental assertoric imperative – *an immanent and universal need to reduce environmental harm* – and

concluded that the purest normative expression of this imperative is the notion of 'environmental sustainability'. This was the first of the two normic foundations that underpin my thesis. The second foundation that I introduced was that of the ability of all people to participate meaningfully and relatively equally in decision-making about their environments.¹

From that point I moved on to construct a *prima facie* case for the study of business dominance in environmental conflict in advanced capitalist society. I also noted that I would focus upon New Zealand examples. My assumption that business dominance potentially exists in the realm of environmental conflict, and that it is a probable source of various significant forms of harm, stemmed from three predicates; the crudely empirical (viz. common sense observation and description of contemporary society), the existing body of research into this phenomenon, and through an analogical/retroductive movement from research into other realms of business power and dominance. In doing this I also reviewed the literature and looked at some of the ways that people have examined this phenomenon. My assessment was that business power has been explored in diverse and often fruitful ways, but they tend to be either system-wide analyses that are largely theoretical and are not thoroughly or deeply grounded in empirical work, or they are relatively weak on the theory, and focus narrowly upon *specific* mechanisms of business dominance. So, at the close of Chapter One I asserted two things: First, that business power in the context of environmental conflict is a very worthy subject of inquiry; And secondly, that the goal of this project was to try and reconcile the strands of political analysis within a broad framework, and to apply that framework to the empirical investigation of the phenomenon.

This integrative goal raises a host of difficulties on meta-theoretical, theoretical and empirical grounds. Hence the broad progression of the thesis. In Chapter Two I began with the meta-theoretical foundations. The purpose of that chapter was to clarify some basic questions about first, the structure of the natural and social worlds that are the object of the study, and secondly the practices (possibilities and limitations upon) of scientific and social scientific investigation. I framed my discussion around a basic question of what a realist philosophy of science could do for resource management in general (this is of course a thesis in resource management), and my study in particular. Bhaskar's critical realism is a difficult area and I strove to draw in the most relevant elements that are scattered across his wide corpus of work, and the work of other realists and non-realist commentators. The insights and uses of critical realism for this project are manifold and profound, and I touch upon those of *most* direct relevance here.

I began with the broad insights of transcendental realism. The split between the *transitive and intransitive* dimensions allows for scientific discontinuity and change while holding on to the notion of a *real* world (indeed, some form of realism is necessary if environmental problems are to be addressed). The depiction of the world as *stratified* underpins my treatment of the mechanisms of business power as transfactual tendencies that may be "possessed without being exercised, exercised without being actualised, and

¹ My purpose in doing so was not to set out the basis of a political treatise but rather to make explicit an imperative that runs through most, if not all, of the literature on business power – whether it be liberal or Marxist in origin.

actualised without being empirically identified".² The *differentiation* of the world means that individual mechanisms can be held to exist, and the picture of the world as *dynamic* means that all mechanisms – and especially social mechanisms – must be treated as temporally contingent. Next there was the notion of *depth explanation* and the four-phase pattern of scientific investigation; the development within this thesis was held to conform with the first three phases of description (Chapter One), retrodution (Chapters Four and Five), and empirical investigation. The fourth phase of corrective work is a natural progression beyond this project. The other main point to come out of that discussion was the emphasis upon *explanation* rather than *prediction*. I then moved on to the social ontology – critical naturalism. The *transformational model of the society-person connection* is also of great importance in the thesis for it provides a sophisticated understanding of the way that people act within structures yet work back upon those structures and constantly transform them. It thus allows for the investigation of causally efficacious social structures while retaining a meaningful role for the historical agent. The later *social cube* is a more complex development of that model and takes in the connection between people and the physical world. Thus, the two-part framework of this thesis can be conceived along the lines of the social-cube, with the value-form relationship making the systematic connection between business and environmental harm.

The distinction between the natural and social sciences (limits to naturalism) was held to rest upon a succession of factors, such as activity-dependence, concept-dependence, greater geo-historical specificity, greater openness and complexity (their 'mish-mash' nature), and the causal interdependence between social science and its subject matter. At least three consequences of this should be mentioned here: First of all, that the messiness and fluidity of the social world means that social science is necessarily tentative; Secondly, that meanings must be taken into account – the hermeneutical moment. In this thesis there is not only a hermeneutical starting point of common-sense description, but constant reference to the perceptions of the agents involved in the dispute, and a strong reliance upon contextual interpretation. I also made use of the dialectical form of investigation, for example, in contrasting the responses of actors in the Black Head dispute with Cullen's analysis of the settlement; And thirdly, that social science has an emancipatory element. This element has two basis forms. Dalziel describes one, when he writes, "successful explanation of underlying structures is an essential prerequisite for effective policy making".³ The other is the immanent critique argument (for example, the revelation of a mistaken understanding may undermine that belief), where there is a forceful link between social science and emancipation. I have reviewed the critical realist arguments in some detail to reveal how they permeate and enable all aspects of this investigation. I concluded Chapter Two by noting that what is constructed here is an exploratory, explanatory, and hopefully emancipatory critique of business power in environmental conflict.

Chapter Three was the third and final element of the preparatory argument, and it dealt with two fairly disjoint elements. In the first half of the chapter I reviewed four broad bodies of research and writing on environmental conflict: (i) the conflict resolution

² R. Bhaskar, 1994, *Plato Etc. The Problems of Philosophy and their Resolution* Verso, London, p. 23.

³ P. Dalziel, 1994, "Critical Realism and the Methodology of Economics" A paper presented to the Social Science Group seminar, Lincoln University, Canterbury, p. 5.

literature, (ii) analysis of competing forms of reason, (iii) the partisan review, and (iv) academic case studies. The first two groupings are comprehensive analytical approaches to the subject and they were discussed because they provide some useful theoretical insights, but also to point out some serious deficiencies in much of the literature in those areas. The second two were featured because diverse narratives of past conflicts provided a fertile reference source for problem definition, theoretical development and, most of all, the execution of the empirical studies themselves. But the other element here is that the form and insights of this investigation have critical implications for those wider discourses. In the second half of that chapter I described and justified the research method used in the study, how I was going to choose and construct the two case studies, and apply the analytical framework to those studies. One point of note here is that I made it clear that the first three chapters of each study were intended to be largely empirical so as to enable the uncluttered, global/contextual, transparent, and consistent application of the framework, and to enable the studies to exist as a resource for other investigations into environmental conflict. Only after the full contextual development was complete could the operation/non-operation of the eleven mechanisms be explored.

In Part Two I constructed a theoretical framework for the study of business power. This was the hub of the thesis. The first part of that framework – the value component – was developed in Chapter Four. I began discussion with the dilemma of theorising about class in the context of environmental politics/conflict; of differentiating and theorising about relatively enduring sectors of society. This question needed to be resolved before it was possible to *categorise* actors within my framework. The difficulty is that environmental activism seems to transcend or be dissonant with traditional socioeconomic class alignments. My solution to the problem was as follows. While ‘environmentalists’ cannot be easily treated as a monolithic grouping in terms of socioeconomic class, there is the possibility that they can be theorised; (a) in *opposition* to capitalists (who can be treated as sufficiently homogenous on the basis of their overriding interest – *vis-à-vis* ownership and control – in profitable capital accumulation), and (b) on the basis of value-form. This is a functional conception of class and is thus not dependent upon solidary associations or consciousness. I proceeded to integrate both approaches into the framework, but it is the latter foundation that is central.

The adoption of the classical distinction between use-value and exchange-value performs a dual function: First, it allows a political distinction to be made. The interests of capitalists are held, in the first instance, to be with the production of exchange-values, and the interests of environmentalists, in the first instance, with use-values (and, more broadly, non-commodified forms of value). It thus acts analytically as a broad ordering principle for the discussion of environmental politics; Secondly, the commodity form – and especially its most abstract manifestations – is seen to be intrinsically problematic in ecological terms, constituting a serious threat to the attainment of sustainable ecological relations. These elements together enable a systematic connection to be made between socioeconomic function and environmental harm. It is a sophisticated conception of value that enabled subsequent discussion of interests, attitudes, perceptions and subjective valuations to be grounded in an understanding of the social relations underlying environmental conflict, and vice versa. The remainder of that chapter was devoted to investigating the implications of

the commodity form for socio-ecological being. The identification of the commodity form as problematic in that realm is not new. However, the use of this connection as an ordering principle for the study of environmental conflict/politics is new. Furthermore, I provided a fuller investigation of value-form and socio-ecological being than I have found elsewhere. One final point is that this approach, and the political analysis that follows, hinges on the realist notion of transfactual tendencies.

Chapter Five contained the more extensive component of the framework that encompassed the power and politics element – namely, the mechanisms of business dominance. The political element operated on two levels (for it is an attempt to reconcile some of the theories of business power in environmental politics). The first works at the level of broad structural relations that persist between business, the state and other social agents (in this case environmental actors) in advanced capitalist societies. It is based upon ‘state theory’ – in this case the work of the post-Marxist/neo-Weberian Claus Offe (although I developed his arguments considerably by drawing on other broadly Marxist and neo-pluralist work) – and it is, in great part, state centred. Four principles were explicated; Exclusion, Dependency, Maintenance and Legitimation. Offe and other post-Marxists have theorised that inevitable disjuncture between the principles leads to crises of legitimation. However, I rejected the deterministic and totalising elements on the basis of the realist understanding of complex open systems, and once again conceived of these mechanisms in transfactual and tendential terms. In the second part I drew together a series of five narrower mechanisms of business power that have been studied by both liberal and Marxist scholars alike (especially within neo-pluralist analyses of particular disputes); the business sanction, unequal resources, the privileged role of private property rights (where I described a double privilege), distortion of communicative processes and the dilemma of collective action. I brought the two levels together within the framework in order to understand how they are functionally connected. In doing this I sought to reconcile the disjoint theorising on the subject that was described in Chapter One.

Part Three contained the two case studies. The Black Head study was conducted over Chapters Six to Nine, and was the more straightforward of the two. In Chapter Six I described the natural character of the area, its historical use, and the arguments surrounding quarrying. Chapter Seven provided an historical narrative of conflict, and in Chapter Eight I analysed the conservation settlement. The Black Head conflict was relatively uncomplicated in substantive terms. Similarly, the process of conflict played out within a very limited negotiating framework, and as a consequence the pattern of conflict was both fluid and informal. But there are a number of very interesting characteristics of the dispute that are worthy of mention. Of great note was the disjuncture revealed by Cullen’s discounting analysis. While the outcome of the dispute was generally portrayed as a significant commercial sacrifice on the part of the Company, Cullen revealed it to have been quite the contrary – BHQ would in all likelihood profit from the conservation agreement. The Black Head dispute was a clear case of business dominance both in procedural terms where the Company had largely determined the pattern of discourse, and in terms of the substantive outcome.

In Chapter Nine I used the analytical framework to explain how the Company had been able to prevail. First of all there was a clear correspondence between the study and the

value-form arguments. Both the political split between business and conservation, and the substantive divide at the heart of the dispute, were described by the value-form distinction. I distinguished two levels on which value-form operated. One level was as an *expression* of value (means argument). At that level there was some crossover; BHQ did utilise use-value arguments, and the conservationists' alluded (albeit in the most abstract manner) to the possible commercial benefits of protection. But in terms of distinguishing between social actors it is the level of the parties' *motivations* (ends) that is crucial. On that level it was only the company that was apparently motivated by the chase after exchange, and conversely, the conservationists that were apparently motivated by various non-commodified interests. In addition to this I also examined the connection between commodity valuation and environmental harm and noted that the way the Company valued the resource at Black Head was in some part causative of the destruction. Most significantly, the way that BHQ internalised its benefits and externalised its costs.

I then proceeded to examine the power element. Because the Black Head conflict played out largely at the level of local politics, Offe's principles were somewhat limited in their explanatory power. However, it was also probable that those principles were shaping the behaviour of the local government actors. I concluded that the exclusion and dependency mechanisms operated in indirect and secondary (or deep) ways. That is, the exclusion principle accounted for the broad division of labour that tended to operate between the state and capital, and the pressure upon the state not to become directly involved in organising commodity production. The dependency principle described an undoubted relationship between the state and business across both state and local government actors. I concluded that strategic implications of that relationship were probably strongest at the local government level with the close relationship between the council's and BHQ and its parent companies. By contrast, DoC was relatively buffered from that pre-disposition. Of most use in explanation were the maintenance and legitimation principles. The maintenance role clearly accounted for the actions of the Mines Division, probably explained the non-participation of the Dunedin City Council, and in some part DoC's hesitant approach to the issue. The legitimation role was articulated in two ways, firstly to motivate both the Silverpeaks County Council and DoC to act as mediators or intermediaries seeking the *resolution* of conflict, and most significantly, in mobilising DoC's actions as an advocate (response to political struggle).

The five specific mechanisms of business dominance were of more concrete explanatory power (although they were all connected in some meaningful way with the wider mechanisms). The business sanction did play some part, both as a general constraint upon the actors, and more concretely, in limiting which options for protection were feasible, the subtle exercise of job-blackmail, and the possibility of the environmental sanction. The role of private property was singularly the most important source of business dominance in the Black Head conflict. The Company held an anomalous and anachronistic bundle of use rights that in considerable part caused the conflict, and subsequently enabled BHQ to control the dispute process, and ultimately the options for preservation. There was a strong asymmetry of resources between the actors, although that was partly mitigated by DoC's advocacy on behalf of the conservation interests. One interesting point in respect of resources was that the power that the Company derived from its property right meant that it

did not have to mobilise any significant resources in defence of its interests. As Cullen's analysis revealed the Company displayed a remarkable ability to define reality within the dispute. This happened throughout the conflict as BHQ constantly distorted the valuation of the headland and determined what options were technically and commercially feasible. But it is the disjuncture between the general perceptions of the settlement and Cullen's discounted figures that provides the most invaluable insight into the way business power can distort the terms of discourse. Finally, the dilemma of collective action was useful in explaining why the business acted collectively within the conflict, and why people may not have played active roles. It cannot explain the commitment and sacrifice of the core conservation and Maori campaigners.

I then moved on to the WRMF conflict, which was one of the most significant environmental disputes in New Zealand in recent times. In Chapter Ten I described the Whanganui River system, the genesis and operation of the TPD, and the effects of the scheme upon the river system. In Chapter Eleven I dealt first of all with the political economy of electricity generation, before focusing more specifically upon the arguments surrounding the diversion of water. In Chapter Twelve I provided a narrative of the dispute and provided a general assessment of the three successive substantive decisions on flow levels. In terms of the general form and content of the dispute, the Whanganui conflict was very different from the Black Head dispute: The substantive discourses were broader and technically complex; There was greater and more reasoned scrutiny of arguments; The process was played out in a wider and more politicised context; Decision-making was largely formal; The financial costs of participation were very high; And the substantive outcome of the dispute was indeed a compromise position (albeit one that largely favoured business).

In Chapter Thirteen I followed the same procedure as Chapter Nine. At the end of that chapter I provided a detailed summary of my findings. However, because that was just prior to this general conclusion, I will avoid unnecessary repetition by focusing here upon those findings that either diverged from the Black Head dispute, or were of particular interest.

The value-form conclusions were essentially the same as with Black Head; both in terms of the substantive/political split and in terms of the mechanisms of harm. However, one particular issue is worth highlighting. When considered in institutional terms, the SOE form occupies a grey area between the state and business. However, on the basis of the value-form argument the ultimate interests of Electricorp were held to be the chase after exchange value. From that point onwards I treated the Corporation as essentially a capitalist actor, albeit one that stood in a special relationship with government.

The strategic relationships of Offe's schema were extremely valuable in the explication of the WRMF dispute. There were a number of reasons for this. In constructing the case study I provided a significant amount of historical and contextual detail. The case study took in the genesis of the power scheme, the historical origins of conflict, and the wider neo-liberal structural reform program including the transformation of both the electricity sector and the environmental administration. The ambit of my investigation thus took in an extended time frame, including a period of great change, and the actors within the dispute were themselves caught up in those transformations. It was therefore possible to

plot the changing dynamics of the dispute against those wider transformations of the role of the state. Some examples: The *exclusion* principle explained the pressure upon the state to deregulate and corporatise electricity generation and transmission; Over the course of the dispute the articulation of the *maintenance* role was redefined from one of direct intervention, to a conscious distancing of the state from operational control. This helped explain both the genesis of the TPD and the later reluctance of government to seek some sort of corporatist accommodation; Finally, it was possible to observe first, an historical *legitimation* deficit arising from the state's zealous performance of its maintenance role, and later, the subsequent compensation for that in terms of DoC's persistent advocacy (positive right).

The five mechanisms of business dominance operated quite differently within the Whanganui conflict. In the Black Head conflict the Company's power was largely derivative of the property rights structure, whereas in the Whanganui dispute Electricorp's influence essentially derived from its overwhelming resource advantage. Consistent with Lindblom's portrayal of corporate capital, Electricorp possessed superior financial, organisational and political resources compared to other actors in civil society. Without doubt the possession of those resources (mostly financial) greatly privileged the corporation in its advocacy (especially in the inherently expensive context of litigation), and hence in its success in retaining the greatest portion of flows for its use. But one of the most interesting things about the Whanganui dispute was that despite Electricorp being a large Corporation with vast resources, it failed to derive a great deal of strategic power from some of the remaining mechanisms. For example, the Corporation's ability to sanction was greatly constrained by on the one hand, its inability to transfer its investments, and on the other hand, that the impacts of any commercial sanction would be diffuse. It was thus possible to elicit a greater understanding of the pre-conditions necessary for the operation of each mechanism. Probably the greatest insight to come out of the comparative study, was that in both disputes business displayed a significant yet *relative* ability to dominate. However, the sources of dominance – the 'mix' of generative mechanisms – differed substantially between the two conflicts. I will enlarge on this point later in discussion.

In concluding the Whanganui study I observed that Electricorp's substantive victory was relative rather than absolute. The in-stream/environmental interests did gain a great deal, but in aggregate the Corporation did far better. The challenge for the framework was to explain (in some meaningful part) how Electricorp – a very powerful business actor – did lose the use of some flows at a significant financial cost. I offered two broad reasons for this. The first was in terms of the particular effectiveness of the in-stream challenge (albeit at a huge cost to those groups and individuals). This demonstrated that environmental actors can and do extract substantial concessions in their collective efforts. However, very few examples of conservation advocacy involve the kind of deployment of resources that happened in the Whanganui issue. The other reason was with respect to the Corporation itself, and the efficacy of the mechanisms posited in my framework. Electricorp's power in the dispute was reduced by, *inter alia*, their inheritance of the legitimation deficit, the reconfigured maintenance role that meant the state was reluctant to actively intervene in support of the commercial interests, their position as a monopoly with attendant legitimation problems, the weak form of private property present in the water right and the countervailing

constraint of the Water Act, their inability to sanction, and the scrutiny of their arguments within the formalised decision-making process. All of these factors served to constrain the powers of the Corporation, *yet it still remained dominant.*

Explanation

I will return now to the essential focus of the project; *the ability of business to dominate within environmental conflict, the exercise of this capacity, and the consequences of such dominance.* What has this project revealed about these phenomena? I will begin with the *exercise* of this capacity because in this thesis I have chosen to study observable episodes of environmental conflict in order to gain *entrée* to the mechanisms of power.

On a general level the realist understanding of society is an invaluable foundation for comprehending the exercise of mechanisms of business power. I will highlight two useful insights (of many). The first is that such mechanisms operate within open systems and will therefore act complexly with other causal factors to produce events. It is thus possible to say that mechanisms of business power operated in a dispute yet environmental interests extracted concessions. For example, in the Whanganui dispute the Water Act served to constrain the power of Electricorp's water right, whereas in the Black Head dispute there was no resource legislation that could directly limit the environmental impacts of quarrying. One of the most significant implications of this is that it avoids the errors of determinism or dogmatism, and allows for a plurality of explanations. The other point is that mechanisms of dominance must be understood in transfactual terms. This may mean that a mechanism of influence, say a property right, is exercised but produces no observable event, or an event that is not observed. This also has important implications because it suggests that the mechanisms posited in this thesis will operate beyond the realm of observable environmental conflict. For example, the possibility that business will exercise sanctions may work to suppress the emergence of environmental conflict, or of wider environmental initiatives.

The next observation of note is that the various mechanisms operate both jointly and separately, both vertically and horizontally. At the end of Chapter One I noted that I wanted to vertically integrate the levels of analysis to see how the mechanisms studied empirically by neo-pluralists are connected to wider structural observations. Take, for example, the issue of property rights. Pluralists such as Schrecker have observed in their empirical studies of environmental conflict (see 1.4.) that private property rights serve to privilege business. These are useful observations, and I have made similar ones within this thesis. However, to understand why this is so one needs to examine the critical function of private property for commodity production and exchange. And to further comprehend how the privilege is maintained one needs to understand factors such as the state's role in the enforcement of those rights. In terms of horizontal connection between the mechanisms, an example would be the link between BHQ's private property right and its consequent ability to define reality. So by bringing these mechanisms together within my framework it has been possible to study their joint exercise. This is one of the most significant developments in this work, and is aimed at filling the gap in the literature that I noted in Chapter One.

The third set of insights is in respect to the conditions necessary for the exercise of each mechanism. The business sanction is a good example here. In 5.4.(i) I argued that this

form of business power is derived from the potential cessation, translocation, reduction or even withholding of future investment or production. It was thus interesting to observe the limited efficacy of this mechanism for Electricorp because there was little potential for such movements, and, moreover, any consequences would be diffuse. In other cases the sanctioning mechanism will be very effective (take for example, the 'fast ferries' conflict outlined in Chapter One where the local businesses were pitted against the environmentalists because of the possibility that Tranz Rail would move its operations elsewhere). Each of the posited mechanisms requires a particular set of conditions to be exercised. One of the strengths of the comparative case study method for this project is that it reveals how those operative conditions may or may not be present. However, because there are a broad array of mechanisms available to business (I am not implying the necessity for conscious use) it is likely that some of the mechanisms will be available to reasonable sized enterprises in most instances of conflict. This empirical observation is further bolstered by the logical derivation of most of these mechanisms from general characteristics of commodity production in advanced capitalist society – as is contained within the analytical framework.

Still on the topic of operative conditions, Offe's model deserves specific attention. In the Black Head conflict it was possible to point to obvious examples of those relationships – the Mines Division's performance of the maintenance role, or DoC's articulation of the legitimisation role. However, while these were crucial relationships they were fairly limited in their ability to explain specific *patterns* of behaviour or influence. It was in the Whanganui study that I was able to more fully exploit the explanatory insights of Offe's principles. This is because Offe's schema requires supplementary historical work at the system-wide level (which partly accounts for the size of the Whanganui study). Having provided that background, Offe's schema was crucial to the comprehensive understanding of business power in that conflict. I turn now to the issue of the ability of business to dominate in environmental conflict.

Two broad approaches can be taken here in concluding what this thesis says about the *ability* of business to dominate in environmental conflict. The first approach is to generalise from the empirical observations; namely in both disputes business was able to prevail. In the Black Head conflict the Company displayed a remarkable ability to control the course and outcome of events, and in the Minimum Flows conflict Electricorp's vast resources enabled it to shape much of the pattern of conflict and to successfully mitigate what were probably inevitable losses (and could easily have been far greater). These two studies add to the body of evidence that suggests that business occupies a privileged position. The second, and more forceful argument, is founded on the causal explanations contained here. While I have focused upon the manifest exercise of these mechanisms of influence, by understanding the causes of business dominance as arising out of the ownership and control of commodity production, and the wider structural (albeit historically contingent) dynamics of advanced capitalist society, it is possible to make general statements. As I noted in the above paragraphs, in both of the disputes a series of mechanisms operated to enable business to dominate. Those mechanisms are likely to be broadly available (in different mixes) to business. However the ability of business to dominate in any particular setting will be historically contingent. So on the basis of empirical observation and the causal understanding of these mechanisms, I would assert that

business derives substantial political power out of the ownership and control of commodity production, power that it can readily use to dominate in environmental conflict (note this is a tendential assumption). It is also useful to bear in mind the realist understanding that power (ability) may be possessed without being exercised in any given context.

The *consequences* of dominance also brings discussion back to the opening paragraph of the thesis: to investigate how these two elements together systematically subvert both the possibility of sustainable relationships with the natural world, and the ability of people to participate in decision-making in respect to their environments. I will first deal with the issue of business dominance and sustainability.

In each of the disputes studied here considerable environmental harm was caused by business activity. This is in itself significant. Both Black Head and the Whanganui River system were held to be of great value for reasons other than commercial use, and some of those values would be lost in perpetuity and others would be lost as long as the business activity persisted. However, as I observed above, those examples of environmental harm are both symptomatic and constitutive of *wider* environmental problems. Hence, my argument about the relationship between business dominance and environmental harm has broader implications. In this thesis I have identified a fundamental connection between business and environmental harm in the value-form relation. I observed that the preoccupation with exchange-value played a causal role in both disputes (most notably through the internalisation of commercial benefits and the externalisation of environmental costs). The argument about the dangers of treating the natural world in commodified terms has been made by ecologists (eg. Leopold), systems theorists (such as Wilden), and Marxists, among others. While it can only be a partial explanation of environmental harm in advanced capitalist society it is a crucial one, and it is one that is systematically connected to business actors.⁴ I must also emphasise that because it is understood in realist terms this theory can readily accommodate instances where business is acting to reduce environmental harm (eg. waste management companies). I have already concluded that business derives substantial political power out of the ownership and control of commodity production, power that it can use to dominate in environmental conflict. The value-form argument adds another dimension to this where through dominating within environmental conflict business will *tend* to contribute to the causation of environmental harm and thus subvert the development of sustainable relations.

The argument that mechanisms of business power will hamper the achievement of sustainable environmental relationships is bolstered by the second matter; the *unequal ability of people to participate* in decision-making in respect to their environments. On the basis of the observations in these studies, the reverse side of business dominance is that: First, some real environmental problems that affect people may be systematically hidden from them (businesses ability to define reality is especially important here); Secondly, many environmental concerns held by people will not be raised in the first place; Thirdly, (and crucially in the context of environmental conflict) environmental advocates (where they are

⁴ Although very valuable as an organising principle and in understanding the ways the actors in the disputes related to the natural world, I think the strength of the value-form argument will only be *fully* realised at a wider system-wide level. For example, it will only be when the basalt from Black Head, or the electricity from the Western Diversion flows, is consumed at a distance, mediated by markets, that the most damaging and cumulative consequence of abstraction/disconnection will be felt.

not acting as capitalists) will be structurally disadvantaged in their political efforts relative to business actors; Fourthly, the state will be limited in the extent to which it can protect non-commodified environmental interests in broad historical terms (ie. it may be particularly effective in certain contexts); And fifthly, that these disadvantages will result in environmental harm and the perpetuation of unsustainable relations with the natural world. In the context of this thesis even if one does not subscribe to the value-form argument, this basic political observation still provides a sound environmental argument against business dominance. But as I also noted in the first chapter, the types of inequalities demonstrated in environmental conflict (take for example the types of sacrifices that had to be made by Sue Maturin or Keith Chapple) subvert the notion of anything more than nominal democracy in environmental decision-making. So there is a very powerful social justice argument that stands alongside the environmental one.

So in answer to the essential question that I stated in the opening paragraph of this thesis, I have contributed to a fuller understanding of the exercise of mechanisms of business power, provided added confirmation of this ability, and revealed some ways that this phenomenon subverts both the possibility of sustainable relationships with the natural world, and the ability of people to participate in decision-making in respect of their environments.

Before I proceed to make some broad comments on the emancipatory consequences of this project I will make some observations about the limits to my approach within this project and point to where further development will be useful. The first point I will stress is that in constructing my framework I sought to collect together mechanisms already identified in the literature as relevant to the domain of environmental conflict or politics. However, over the course of the study there arose additional issues such as the role of the courts that will need to be more fully worked out (either in terms of existing mechanisms, such as Offe's principles, or in their own right). This is by no means problematic because the open realist framework can accommodate such developments. The second point is that by taking a comprehensive approach to this subject one necessarily sacrifices the insights of focusing upon a few mechanisms. An alternative approach that would build on the findings of this study would be to take, for example, an issue such as private property rights and construct a vertical study that considers the basis of their privilege, their articulation and their support by the state. Such a study could cover a series of conflicts for greater comparative value. Thirdly, there were eleven broad categories dealt with in the context of each case study. My methodological response (see 3.3.(ii)) was to apply the framework on the completion of a full contextual study. It would have been unworkable to wind the principles through the studies or discuss the mechanisms sequentially, without a full contextual picture of the conflicts. The downside of this is was that the case studies were bulky. Nevertheless it was unavoidable given the integrative nature of this project. None of these issues undermine this project but they do point to possible developments in the future.

Emancipation

In Chapter Two I set out the critical realist argument that social science has a potential, and sometimes inevitable, role to play in processes of human emancipation.⁵ Most particularly, that “successful explanation of underlying structure is an essential prerequisite for effective policy-making”.⁶ Although I would add that it is an essential pre-requisite for *all types* of decision-making. The explanation of structures of business power contained within this thesis will have manifold implications. Their development is beyond the boundaries of this project, so I will provide only three brief examples of the types or levels of application that may follow.

A first level could be labelled *advocacy strategies*. The understanding of the array of mechanisms of dominance could stand as a resource for deciding upon optimal strategies for opposing environmentally harmful business activity.⁷ They could thus assist in identifying what forms of advantage are available to a business in a given geo-historical context, and conversely where weaknesses lie. For example, the necessity of combating information deficits in situations where business acts to control communications, or the absolute importance of recruiting state actors such as DoC to a particular cause, or to counter attempts to sanction by assessing the limitations upon a company’s ability to move or withhold its capital. Of course, environmentalists have always looked for such weaknesses, but a comprehensive analysis may be useful.

A second level could be in motivating *institutional reform* (or indeed deterring certain types of reform). An example of the need to *deter* reform is in respect to businesses efforts to see DoC’s advocacy function extinguished or watered down. Indeed, the two conflicts studied here provide a strong argument for the enhancement of the advocacy function (of course this would bring it into greater conflict with the maintenance dynamic). The Black Head conflict confirms the necessity for planning laws and their extension to existing uses to restrain the excesses of landowners. The inherent difficulties with the commodity form prompt other solutions, for example; Leopold’s advocacy of ethical remedies, market frameworks or regulations that force business to internalise costs, the need to provide information on commodities denoting that they were manufactured in a sustainable way, etc.

The trouble with these types of reform is that they do not get at the fundamental structural mechanisms at work, and so there is a possible third level; *radical social transformation*. Where Leopold sought the extension of ethics as a response to the alienating and exploitative consequences of the commodity, Marx sought the wholesale subversion of the commodity relations. In this thesis I have observed that the ability of business to dominate in environmental conflict and to inflict environmental harm flows out of the ownership and control of commodity production. Given the global environmental imperatives identified at the outset of this thesis, there are strong arguments for change at this level.

⁵ Where emancipation is understood to be “the transition from an unwanted, unnecessary and oppressive situation to a wanted and/or needed and empowering or more flourishing situation” R. Bhaskar, 1994, *Plato Etc.* p. 253.

⁶ P. Dalziel, 1994, “Critical Realism and the Methodology of Economics” p. 5.

⁷ They may equally assist a business to identify its own structural advantages within a conflict.

These are just three broad examples of the political implications of this type of work. The transformational model of the society/person connection – with its recognition of the fundamental role of social structure balanced with a meaningful role for the historical agent – allows for the possibility of enlightened action at all of these levels.

Conclusion

In approaching the problem of business dominance in environmental conflict I have brought together three strands of argument; the broadly meta-theoretical or philosophical, the broadly theoretical, and the broadly empirical. By doing so I have been able to draw together, develop and successfully investigate a range of mechanisms that have been variously described elsewhere. By undertaking this kind of integrative project I have sought to – at least in some meaningful part – fill a distinct gap in the literature. The theoretical insights of political economy, empirical insights of liberal scholars, and the socio-ecological insights of those such as Leopold or systems-theorists, can all be brought together to provide a more comprehensive understanding of the ability, exercise and consequences of this form of social power. The ability of business to dominate is real and pervasive, the exercise of those powers is historically contingent yet business is able to draw on a range of mechanisms and thus adapt to diverse circumstances. Such dominance poses a serious impediment to the achievement of sustainable relationships with the natural world, and the ability of people to participate in decision-making in respect to their environments. But the realist understanding of social science suggests the possibility of structural transformation through the enhanced understanding of the world, and through the meaningful role of the historical agent in the face of structures of dominance.

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Acts of Parliament

Arbitration Act 1908
Companies Act 1955
Conservation Act 1987
Conservation Amendment Act 1989
Conservation Law Reform Act 1989
Harbours Act 1950
Lake Taupo Compensation Claims Act 1947
Maori Trust Boards Act 1955
Mining Act 1971
Public Finance Act 1989
Public Works Act 1981
QE II National Trust Act 1977
Quarries and Tunnels Act 1982
Reserves Act 1977
Resource Management Act 1991
State Owned Enterprises Act 1986
Summary Proceedings Act 1957
Town and Country Planning Act 1977
Treaty of Waitangi (State Enterprises) Act 1987
Waste Lands Act 1866
Water and Soil Conservation Act 1967
Water and Soil Conservation Amendment Act 1988
Whanganui River Maori Trust Board Act 1988

Appendix A

The Black Head Covenant

Covenant for Conservation Purposes (Section 27 Conservation Act 1987)

Whereas Black Head Quarries Limited a company incorporated under the Companies Act 1933 and having its registered office at Fairfield (“The Landholder”) and the **Minister of Conservation** (“The Minister”)

Whereas

A Section 27 of the Conservation Act 1987 provides that:

- (i) There may be granted or reserved over any land any covenant for conservation purposes in favour of the Minister.
- (ii) Every such covenant shall run with and bind the land that is subject to the burden of the covenant, and shall be deemed to be an interest in land for the purposes of the Land Transfer Act 1952.

B The Landholder is registered as proprietor of an estate in fee simple of the land described in the Schedule (“the land”) being the seaward edges of a basaltic headland comprising more or less regular five-seven sided columns in various formations.

C The Landholder and the Minister have agreed that the land be managed with the following conservation objectives:

- (i) That the basalt column formations on the land be preserved and protected from further quarrying effects.
- (ii) That when it is safe and appropriate to do so public access across the land to the formations will be permitted and improved.

(iii) That the formations on the land affected by earlier quarrying operations will be cleared of spoil and otherwise rehabilitated.

(iv) That the native flora and fauna on the land be protected and restored where practicable.

Now Therefore This Deed Witness that in accordance with Section 27 of the Conservation Act 1987 the Landholder and the Minister **Mutually Covenant** that the land shall be managed for the purposes and objectives listed in recital C above and in particular on the following conditions:

1 (a) No act or thing shall be done or placed or permitted to remain upon the land that in the opinion of the Minister materially alters the actual appearance or condition of the land and which in the opinion of the Minister is prejudicial to the aim and purpose of within written conservation covenant **Provided However** that the spillage of some material onto the land in terms of subclause (b) of this clause is envisaged during the continuation of quarrying operations above the land.

(b) The Land Holder will take all reasonable measures to ensure there is minimal spillage of material on to the land particularly on to those parts of the land known as the Roman Baths and the Dock. The amount or extent of spillage shall not be greater than that permitted in terms of the consent given by the Minister of Conservation pursuant to section 244(3) of the Harbours Act 1950 a copy of which is annexed to this Deed.

(c) The Landholder will notify the Regional Conservator Department of Conservation Dunedin (the "Regional Conservator") at least two days before any blasting or back actor work is carried out which could result in debris falling into the Roman Baths or the Dock and will permit the Regional Conservator and any other person or persons authorised by him and who are working for the Department to observe the effects of such blasting work if it is safe to do so.

(d) The Landholder will take all reasonable means to avoid causing the collapse of the pinnacle at the highest point of the land or the breaking of any portion from that pinnacle.

2 The Landholder will discuss from time to time with the Regional Conservator the matter of public access to the land with a view to permitting public access across the land when it is reasonably safe and appropriate to do so. It is preferred that access when available is to be generally to and across that part of the land above the western foreshore. The parties agree that access to the land is at any individual's own risk and it is each individual's responsibility to take appropriate precautions whilst on the land. The Landholder will permit the Regional Conservator to erect signs and notices on the

- land relating to the existence of the covenant warning of risk and interpreting the features.
- 3 The Landholder shall not permit any change in the character of the topography of the except as may be authorised in writing by the Minister.
 - 4 The Landholder shall not build any hoardings on the land or erect any buildings or other structures thereon **Provided However** that with the approval of the Minister the Landholder may erect structures to facilitate public access.
 - 5 The Landholder shall not mine the land and shall notify the Minister of any intention by any person or company to mine the land for minerals petroleum or any other substance or deposit and shall not signify any concurrence in relation to mining without the written consent of the Minister.
 - 6 The Landholder shall notify the Minister of any intention to erect utility transmission lines on the land and shall not signify any concurrence in relation to the proposed work without the written permission of the Minister.
 - 7 No native vegetation will be removed or damaged. No exotic colonising vegetation will be removed or damaged without the approval of the Minister. No vegetation will be planted on the land without the approval of the Minister.
 - 8 (a)The Minister will so far as is practicable keep the land free from gorse broom sweet briar nodding thistle and all noxious plants and in particular comply with the provisions of any notices given under the Noxious Plants Act 1978.
(b)The Landholder will so far as is practicable keep the land free from exotic tree-species.
 - 9 The Landholder shall not permit the accumulation of any rubbish or material which is unsightly or offensive on the land **Subject However** to the proviso to clause 1(a).
 - 10 The Landholder shall not subdivide the land except for such conservation purposes as may be authorised in writing by the Minister.
 - 11 Any officer of the Department of Conservation or any other person working n behalf of that Department may after first advising the Landholder of his or her intention so to do and receiving the consent of the Landholder (which consent shall not be unreasonably withheld but may be subject to reasonable conditions) enter upon the land for the purposes of viewing the state and condition thereof or for the purposes of carrying out such work as may be necessary for the protection or maintenance of the land consistent with the aims and purposes expressed herein or for the purpose of research provided that no such work shall be carried out which material interferes with the existing use of the land. The Landholder shall allow any such officer or other

person as aforesaid to enter upon the land for any of the purposes aforesaid the full free uninterrupted and unrestricted right liberty and privilege from time to time and at all times by day and by night to go pass and repass on foot and with or without machinery and implements of any kind over and along any part of the land comprised and described in the Certificate of title which the land comprises part.

- 12 The Landholder shall not directly or indirectly damage alter or impede access to any facilities (including information notices or boards) that may be placed on or affixed to the land in pursuance of objective (ii) in C above.
- 13 The Minister may provide to the Landholder from time to time and at any time upon request by the Landholder such technical advice or assistance as may be necessary or desirable to assist in meeting the objectives set out in this Deed.
- 14 For the avoidance of doubt:
 - (a) The covenants contained in this Deed shall bind the Landholder and the Landholder's heirs executors administrators successors and assigns in perpetuity.
 - (b) The Landholder shall not be personally liable in damages for any breach of covenant committed after it has parted with all interest in the land in respect of which such a reach occurs.
 - (c) Where there is more than one registered proprietor of the land the covenants contained in this Deed shall bind each proprietor jointly and severally.
 - (d) Where the Landholder is a company the covenants contained in this Deed shall bind a receiver liquidator statutory manager of statutory receiver. Where the Landholder is a natural person in this Deed shall bind the Official Assignee. In either case this Deed binds a mortgagee in possession.
 - (e) The reference to any Act in this Deed extends to and includes any amendment or re-enactment of that Act.
 - (f) Any notice required to be given in terms of this Deed shall be sufficiently given if made in writing and served as provided in Section 152 of the Property Law Act 1952 and shall be sufficiently given if actually received by the party to whom it is addressed or that party's solicitor.
 - (g) Any notice required to be given by the Minister shall be sufficiently given if it is signed by the Regional Conservator, Department of Conservation, Dunedin. Any notice required to be served upon the Minister shall be sufficiently served if delivered to the office or the time being of the Regional Conservator, Department of Conservation, Dunedin.

(h) Any dispute which arises between the Landholder and the Minister in any way relating to this Deed may be resolved by referring the dispute to an agreed third party for decision or by arbitration under the Arbitration Act 1908.

Dated 14th day of May 1991

Schedule

All those parcels of land situated in the Otago Land District containing together 3.5 hectares more or less being parts of Section 3, Block XIV, Dunedin and East Taieri Survey District and being part of the land comprised and described in Certificate of Title Register Volume 255 folio 278 Limited as to Parcels (Otago Registry) as the same is more particularly shown marked with the letters "A" and "B" and outlined with bold red lines on the attached elemental plan.

Signed by Denis Marshall, Minister of Conservation & Jim Hunter Managing Director Black Head Quarries Limited.

Appendix B

Harbours Act Consent

The **Minister of Conservation** hereby consents, pursuant to section 244(3) of the Harbours Act 1950, to the removal by

Black Head Quarries Ltd.

Green Island

Dunedin

of material from the headland known as Black Head (Certificate of Title 255/278), subject to the following conditions:

- a That where removal is to take place more or less above the foreshore or the sea, blasting holes be drilled vertically, that they be not greater than 90mm width, and that explosives not be placed within four meters of the outside edge of the headland.
- b For blasting more or less above the foreshore or the sea, inward burden to be not greater than 2.5 m per hole.
- c That material loosened by blasting be pulled inwards (ie. away from the foreshore or the sea below) with all possible care being taken to avoid spillage outwards.
- d That in the event that any variation in (a), (b) or (c) appears desirable in order to reduce spillage or the size of spilled material (this could arise in areas where whole blocks larger than 2.5 m³ might detach and roll into the sea), a variation can be approved by the regional conservator.
- e Notwithstanding compliance with conditions (a) to (d) the amount or dimensions of any material spilled on to the foreshore or into the sea shall be such that it does not alter the shape of the shoreline depicted in the photographs in the company's 1990 management plan. (This condition means that the amount of spillage or the size of rocks spilled will have to be small enough for the sea to pick up or remove them, leaving the shape of the shoreline as so depicted after allowing for a reasonable period of wave action.)

- f** The regional conservator shall be notified prior to any drilling, blasting or pulling inwards of material at the outside edge of the headland more or less above the foreshore or the sea.

Signed by Phillip Woollaston, **Minister of Conservation.**

Appendix C

Section 244(3) of the Harbours Act 1950

Notwithstanding anything to the contrary in this or any other Act or in any rule of law, where the removal of any material from any part of any land is likely to produce, either directly or indirectly, any detrimental effect on the foreshore or on any beach or reserve adjoining the foreshore, or to lead, either directly or indirectly, to any inroad by the sea or by any tidal water, it shall be unlawful for the owner of the land or any person to remove that material from that part of the land without the prior consent in writing of the appropriate authority, which shall be the Minister where the foreshore, at or adjoining the place at which the removal is likely to produce any such effect or to lead to any such inroad as aforesaid, is vested in the Crown, and the Harbour Board or local authority where the foreshore, at or adjoining that place, is vested in a Harbour Board or local authority.

Appendix D

The Discounting Methodology

The present value, P , of a series of annuities is given by:

$$P = \frac{A \{(1+i)^n - 1\}}{i(1+i)^n}$$

Where:

- A is the series of annual returns accruing at the end of each year for n years.
- i is the discount rate
- n is the notation for the year 1, 2, 3, ..., n .

In calculating; the net present costs of protecting the covenanted area of Black Head, the hypothetical net present costs of further protecting the eastern bluffs, and the potential cost reduction due to the Harbours Act consent, it was necessary to consider discrete periods of time occurring at a future date. To do this I used two time series for each calculation – subtracting the shorter series from the longer.

$$P = \frac{A \{(1+i)^n - 1\}}{i(1+i)^n} - \frac{B \{(1+i)^n - 1\}}{i(1+i)^n}$$

Where:

- A is the series of annual returns accruing at the end of each year for period 1
- B is the series of annual returns accruing at the end of each year for period 2

Appendix E

Fulton Hogan Holdings Ltd.

Table E.1. Company Purchases Since 1970

Date	Company	Purchase Method
1970	R. A. McLennan Ltd	50% with Transport Holdings Nelson Ltd
	Queenstown Concrete Ltd	50% with Northern Transport Ltd
1972	Mc Gregor Bros Ltd	Purchase by Queenstown Concrete Ltd.
	Jack Mowat Hymac	Purchase
	Gore gravel Ltd	Share purchase within Group
1973	Alexandra Transport Ltd	Share exchange within Group
	Alexandra Concrete Ltd	Share exchange within Group
	Otago Bitumen Ltd	Purchase
	M Stevenson Ltd	Purchase
	British Asphalte (S.I) Ltd	Share exchange within Group
1977	Radford transport Ltd	Purchase
	Scurr's Quarry Assets	Purchase
1981	Pavroc Holdings Ltd	Takeover 65%
	Rowe Asphalte Pty Ltd	Investment 80%
1982	Daveys Concrete Ltd	Company agreement
1983	Davey's Concrete Ltd	50% to Allied Concrete Ltd.
	Taieri Carrying Co Ltd	Purchase
1984	Farrier Waimak Ltd	Purchase contracting division
	Pavroc Holdings Ltd	Purchase minority interest
	Stainless Castings Ltd	Purchase 50% — closed down 1986
1985	J. C. Mowat & Sons Ltd	Purchase
	O. F. Howey Ltd	Purchase 58%
1986	ZL Construction Ltd	Purchase
	Southland Construction Co Ltd	Purchase
	Blackhead Quarries Ltd	Purchase 21% — 50%
1987	Farrier Waimak Quarries	Purchase
	Unit Concrete Ltd	Purchase — Daveys Concrete Ltd.
1988	Burnett Construction Ltd	Purchase
	Daveys Concrete Ltd	Purchase 50% from Allied Concrete Ltd.
1989	Tasman Howey Ltd	Purchase second 50%
	Reliable Group Holdings Ltd	Takeover
	Road materials Ltd	Purchase emulsion marketing rights
1990	Marlborough District Council	Purchase crushing and sealing operation
	TNL	Purchase crushing operations — Renwick and Motueka
	Owhiro Bay Quarries	Purchase Allied FH Ltd — 1/3 interest

Table E.2. Fulton Hogan Holdings Ltd — Regionalisation

Region	Company Title	Incorporating
Otago Coastal	Fulton Hogan Ltd	Fulton Hogan Ltd — Fairfield Fairfield Asphalte Co Ltd — Fairfield Maxwell Bros Ltd Bitumen Sales Ltd British Asphalte (S.I.) Ltd Fulton Hogan Engineering Ltd Fulton Hogan Forestry Ltd Industrial Floors and Pavements Ltd Walton Park Sand Co. Ltd Daveys concrete Ltd
Otago Central	Fulton Hogan Central Ltd	Fulton Hogan Ltd — Otago Central Fairfield Asphalte Co Ltd — Otago Central Alexandra transport Ltd Alexandra Concrete Ltd Radford Transport Ltd
Southland	Fulton Hogan	Southland Construction Co Ltd Fairfield Asphalte Co Ltd Invercargill Gore Gravel Ltd
Canterbury	Fulton Hogan Canterbury Ltd	Pavroc Contracting Ltd, including Farrier Waimak and Burnetts contracting and crushing equipment
Nelson/Marlborough	Fulton Hogan Construction Ltd	Tasman Howey Ltd (Tasman Asphalte Ltd, Bulk Bitumen Ltd)
Auckland	Fulton Hogan Contracting Ltd	Reliable Group Holdings Ltd includes Northland, Auckland, Waikato, Tauranga.
Australia: Brisbane	Fulton Hogan Pavements Pty Ltd	

Source: A. Tyrell, 1992, *The Fulton Hogan Story 1933-1993* Fulton Hogan Holdings Ltd, Fairfield, Dunedin, pp.111-15.

Appendix F

Classification of Rapids

Table F.1: Classification of Rapids

Class	Label	Description
I	Practice	Only minor waves and ripples, easy to find course, very minor obstacles
II	Novice	Minimal manoeuvring required, waves three feet or less, no dangerous hazards
III	Intermediate	Some manoeuvring required around rocks and/or holes, waves under five feet, course not always recognisable, consider scouting
IV	Advanced	Multiple hazards – rocks, large holes, strong cross currents, sharp turns etc., waves over five feet, should be scouted
V	Expert	Extremely difficult and complicated series of hazards, usually including large drops, very dangerous, must scout.
VI	Unrunnable	Virtually impossible to float safely in ordinary river craft, high likelihood of injury or death

Source: Tony Parker (Partner, Plateau Guides), 1989, 1989, Evidence on behalf of the Whanganui River Flows Coalition, Planning Tribunal Hearing, p.5.

Appendix G

1958 Order In Council

Authorising the Minister of Electricity to Construct and Use Works in Connection With the Utilisation of Water Power From the Wanganui, Tokaanu, Tongariro, Rangitikei, and Wangaehu Rivers for the Generation of Electrical Energy

Cobham, Governor-General

ORDER IN COUNCIL

At the Government House at Wellington this 29th Day of October 1958

Present: His Excellency the Governor-General in Council

Pursuant to section 311 of the Public Works Act 1928, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby authorises the Minister of Electricity to erect, construct, provide, and use such works, appliances, and conveniences as maybe necessary in connection with the utilisation of water power from the Wanganui, Tokaanu, Tongariro, Rangitikei, and Wangaehu Rivers and all their tributary lakes, rivers and streams, in the Land Districts of South Auckland, Taranaki and Wellington, for the generation and storage of electrical energy, and with the transmission, use, supply, and sale of electrical energy when so generated; also to use electrical energy when so generated in the construction, working, or maintenance of any public work, or for the smelting, reduction, manufacture, or development of ores, metals, or other substances; also to raise or lower the level of all or any of the said rivers and their tributary lakes, rivers, and streams, and impound or divert the waters thereof; also to construct tunnels under private land, or aqueducts and flumes over the same, erect pylons, towers or poles thereon, and carry wires over or along any such land, without being bound to acquire the same, and with right of way to or along all such works and erections; and also to supply and sell electrical energy and recover moneys due for the same.

T. J. Sherrard, Clerk of the Executive Council

(N.Z.E.D. 21/75/1)¹

¹ *New Zealand Gazette* 30 October 1958, No. 66, p.1463.

Appendix H

Electricity Statistics 1942 – 1990

Year Ending March	Total Capacity (MW)	Consumers (thousands)	Kilometres of Line	Real Retail Price (cents/unit)	Gwh Generated	Percentage Annual Increase in GWh	
1942	340.8	455.0	46721	18.03	1928.6	5.4	
1943	364.2	460.8	47383	16.85	2036.4	5.6	Average
1944	414.3	465.3	47618	16.97	2170.2	6.6	annual
1945	395.4	473.8	48539	16.45	2273.8	4.8	increase
1946	433.9	486.2	49520	15.86	2365.0	4.0	1942-
1947	455.9	493.1	50533	15.72	2528.2	6.9	1948:
1948	509.2	511.7	54777	14.93	2599.4	2.8	5.2%
1949	586.7	533.4	61647	14.07	2844.4	9.4	
1950	590.0	554.6	65195	14.30	3035.8	6.7	
1951	589.9	576.3	67843	13.52	3096.7	2.0	
1952	616.1	599.5	70180	12.17	3462.3	11.8	
1953	702.0	622.4	73642	11.74	3579.0	3.4	
1954	764.9	643.8	77721	14.04	4029.5	12.6	
1955	864.6	671.3	81551	13.64	4383.2	8.8	
1956	940.2	699.6	85671	13.38	4748.3	8.3	Average
1957	1205.2	725.9	90101	12.89	4967.4	4.6	increase
1958	1201.0	751.4	94041	12.43	5644.1	13.6	1949-67:
1959	1360.0	777.5	97423	14.83	5677.4	0.6	8.1%
1960	1509.4	802.9	100294	14.20	6360.7	12.0	
1961	1565.8	831.9	104220	13.76	6834.5	7.4	
1962	1814.6	859.7	106612	13.60	7399.3	8.3	
1963	1944.6	884.2	110146	13.19	7951.3	7.5	
1964	2006.3	912.7	112635	12.85	8963.4	12.7	
1965	2335.8	940.2	115526	12.25	9718.2	8.4	
1966	2522.1	967.1	118704	11.83	10577.6	8.8	
1967	2649.8	992.4	120699	11.70	11316.5	7.0	
1968	2975.5	1014.5	124311	12.03	11604.6	2.5	
1969	3137.5	1080.7	126966	12.31	12185.1	5.0	
1970	3682.7	1086.7	129891	11.71	12925.6	6.1	
1971	3908.6	1109.6	132231	10.72	13705.7	6.0	
1972	4208.6	1129.4	135898	9.97	15193.7	10.9	Average
1973	4209.2	1154.0	128605	9.36	17253.5	13.6	annual
1974	4543.7	1182.5	130685	8.73	18114.4	5.0	increase
1975	4784.5	1214.9	134121	7.91	18351.7	1.3	1968-77:
1976	5037.7	1248.9	138146	7.06	20071.2	9.4	6.4%
1977	5365.7	1280.2	139958	8.50	20914.2	4.2	
1978	5633.7	1310.0	141899	10.24	21268.5	1.7	
1979	5623.3	1327.5	143986	9.80	21692.8	2.0	
1980	5860.4	1345.3	144632	11.88	21607.2	-0.4	
1981	6018.2	1363.2	147446	11.14	22110.6	2.3	Average
1982	5826.6	1377.7	148853	10.56	22962.7	3.9	annual
1983	5819.8	1396.8	150528	10.45	24301.3	5.8	increase
1984	6382.3	1417.6	152290	9.94	25854.9	6.4	1978-90:
1985	6987.9	1436.7	154496	9.40	26764.6	3.5	2.9%
1986	7435.1	1462.7	156102	9.93	27017.1	0.9	
1987	7388.7	1488.3	157487	9.68	28160.4	4.2	

1988	7398.5	1509.2	159473	9.39	28686.4	1.9	
1989	7373.0	1528.6	161309	9.40	29457.8	2.7	
1990	7181.9	1547.6	161068	8.85	30157.3	2.4	

Source: J. Martin (ed.), 1991, *People, Politics and Power Stations: Electric Power Generation in New Zealand 1880-1990* Bridget Williams Books and ECNZ, p. 294

Note 1: The apparent reduction in length of line between 1972 and 1973 is the result of the changed basis of measurement from route miles to circuit kilometres.

Note 2: Real retail electricity prices. Nominal retail prices of electricity are derived from revenue from sales divided by units sold. Using the Consumer Price Index of base December 1989=1000, nominal prices are converted to real prices in March 1990 terms.

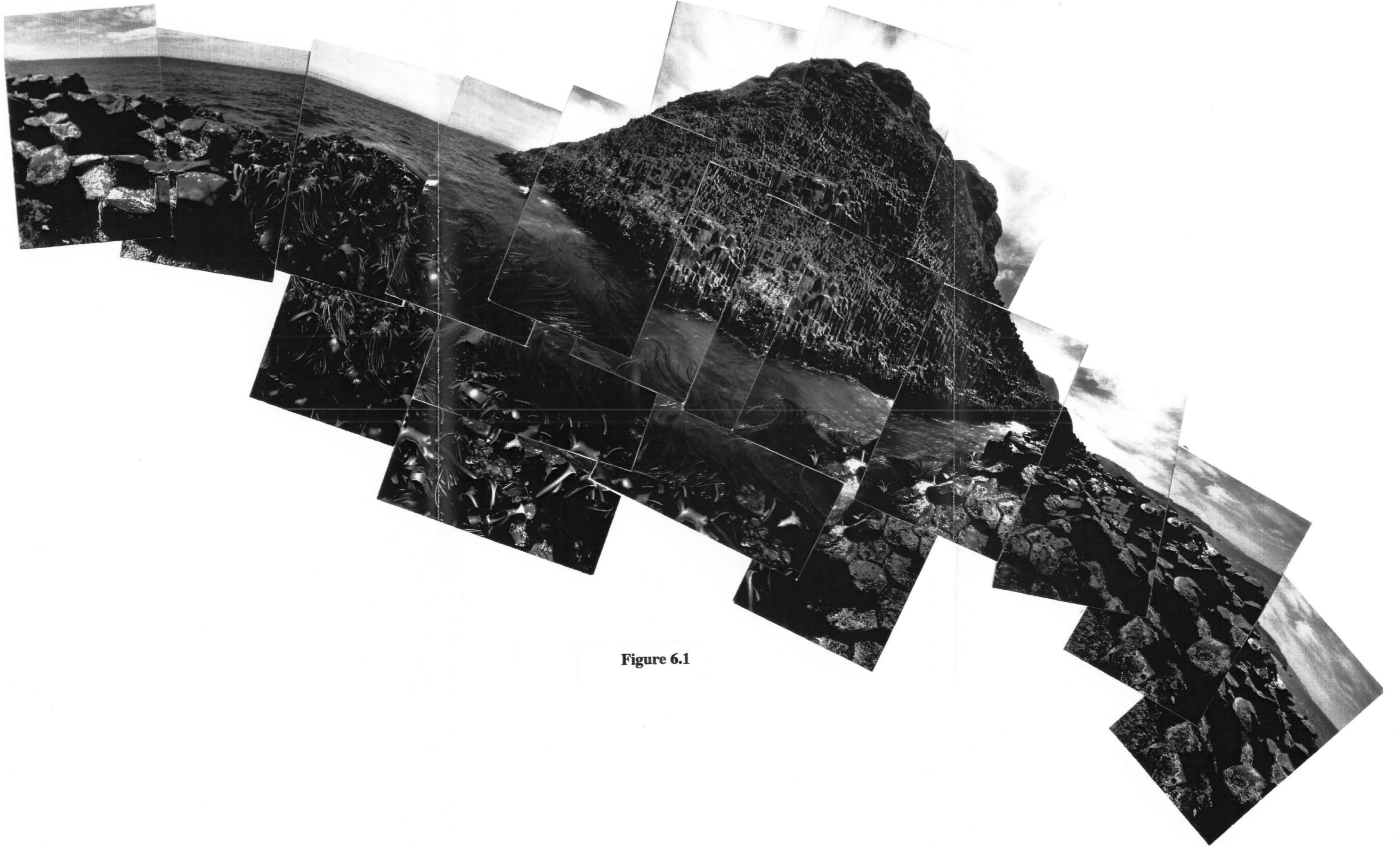


Figure 6.1

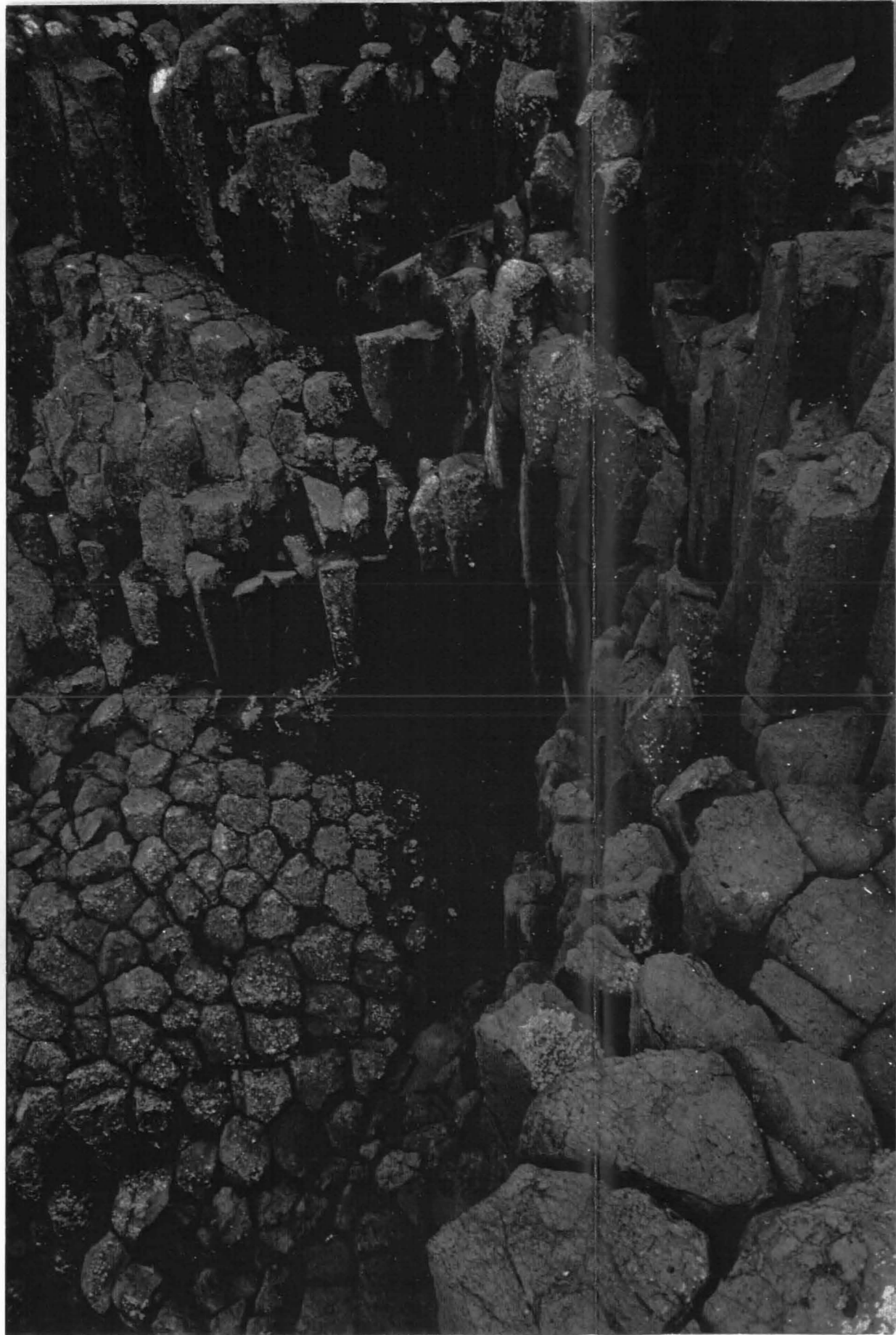


Figure 6.2

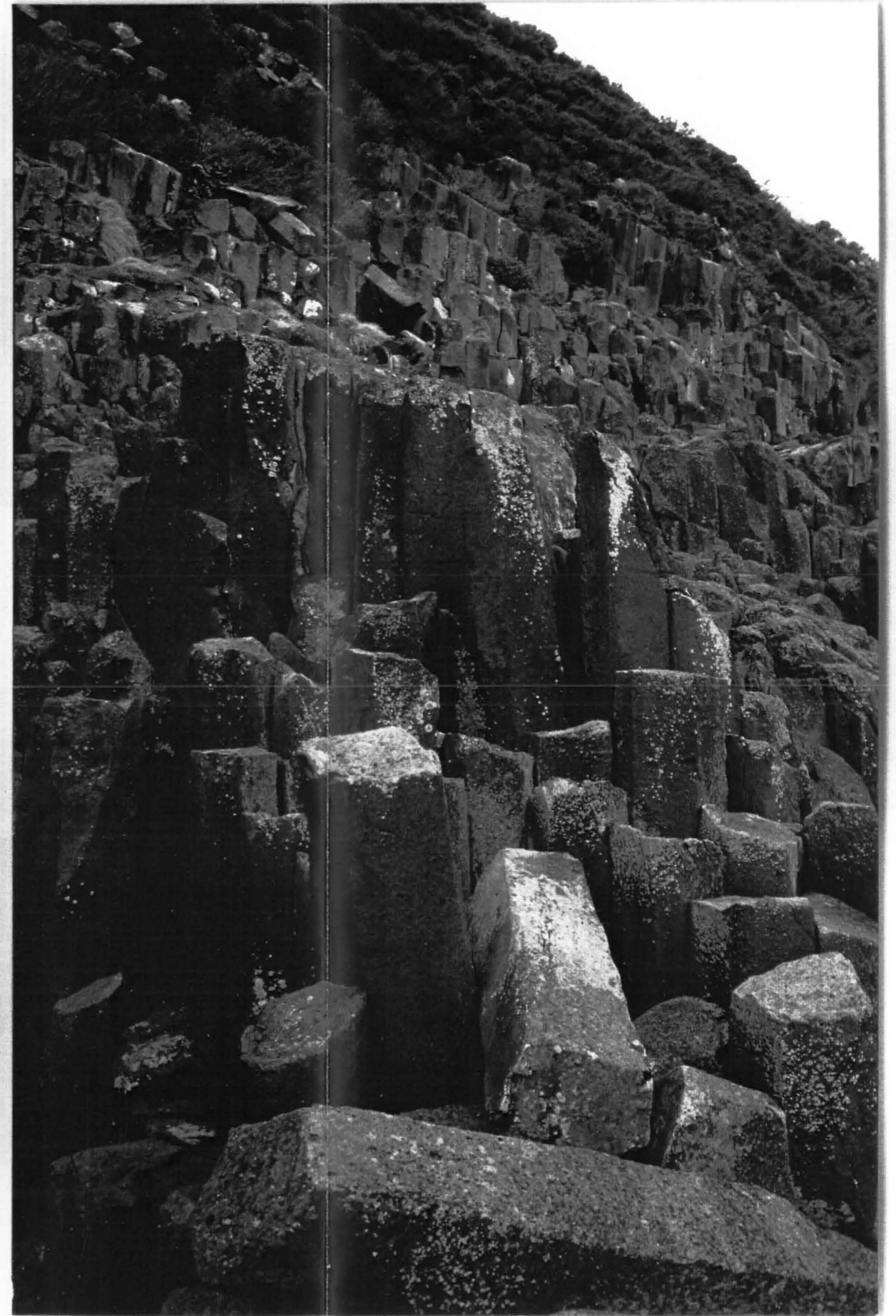


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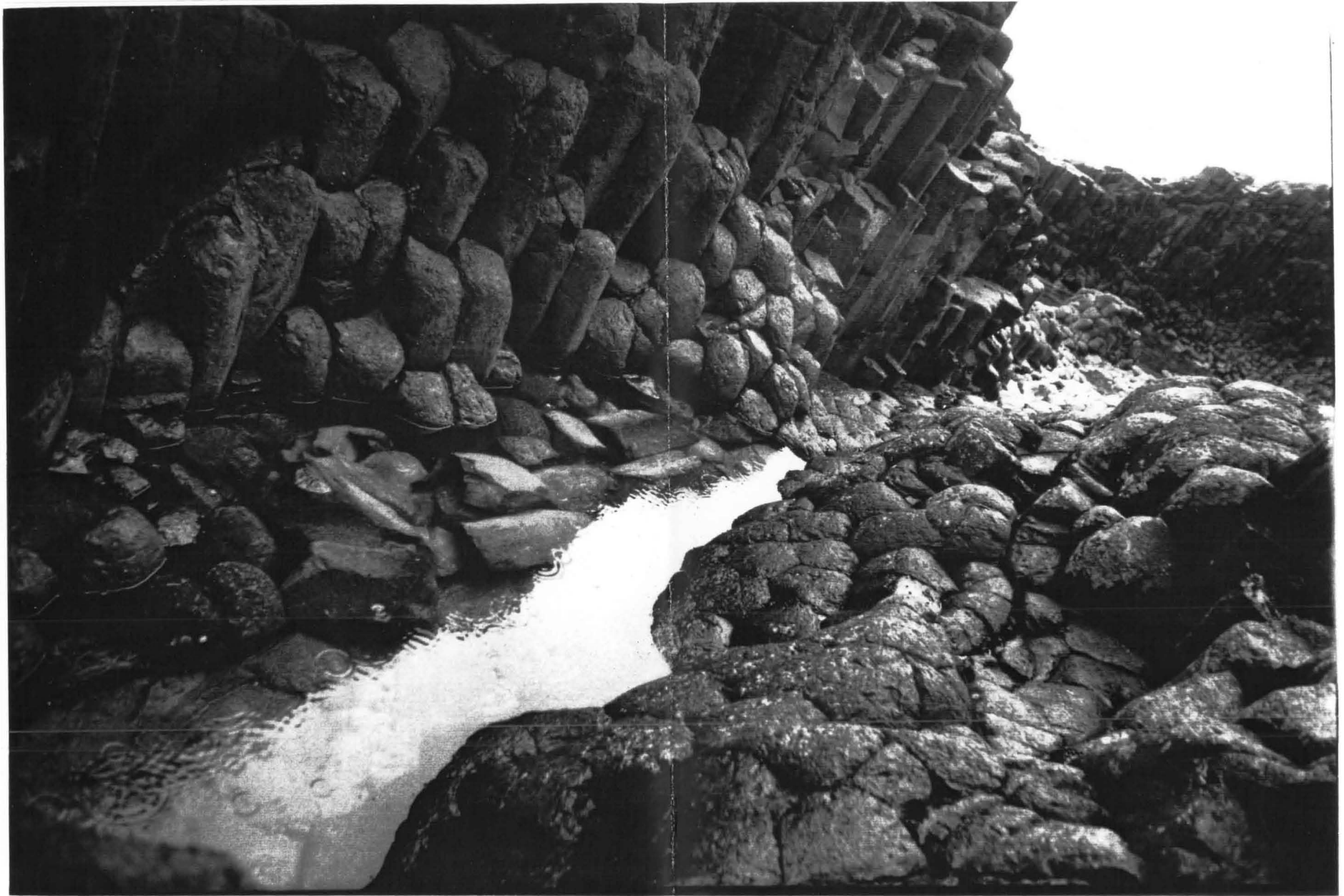


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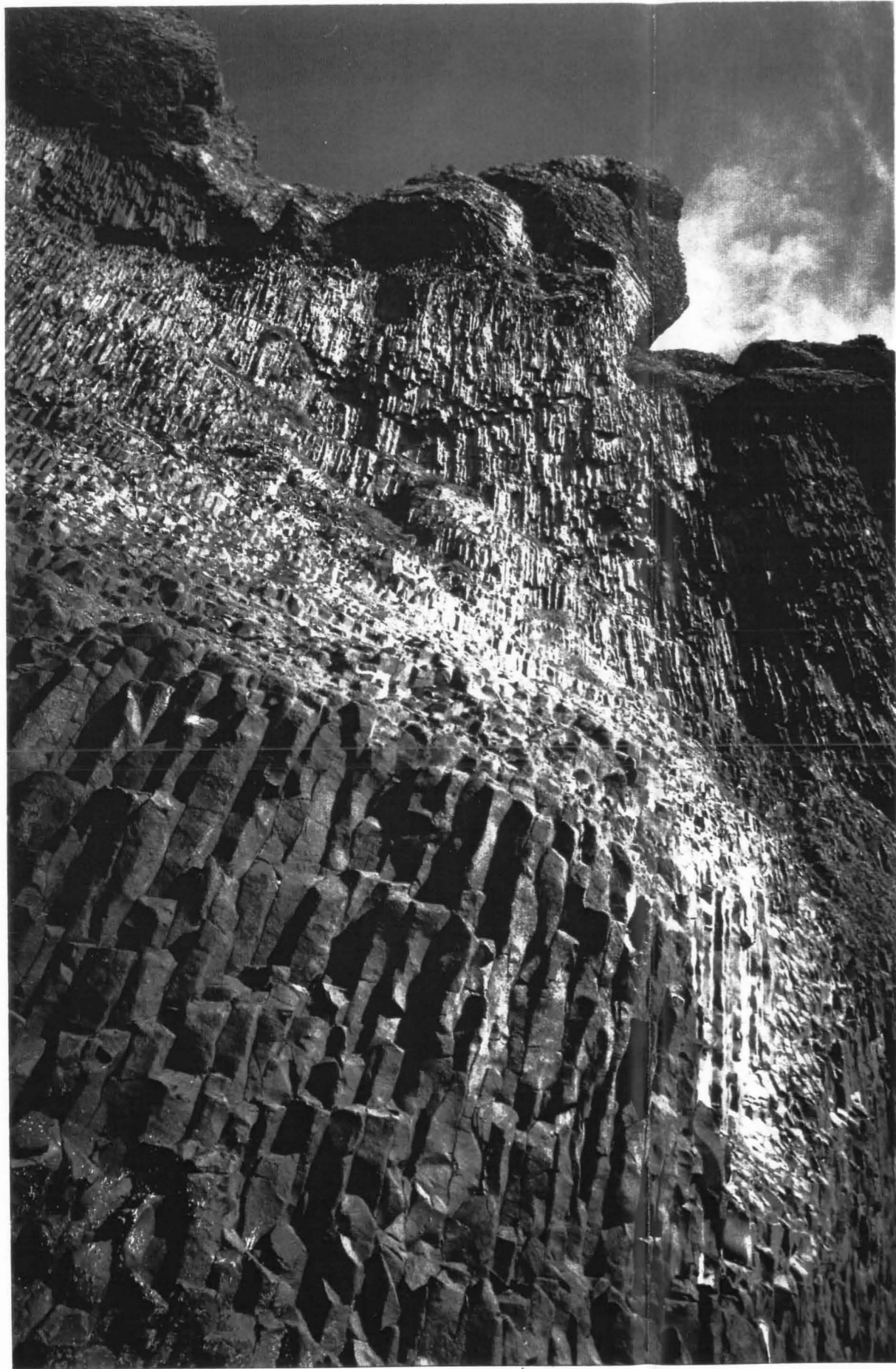


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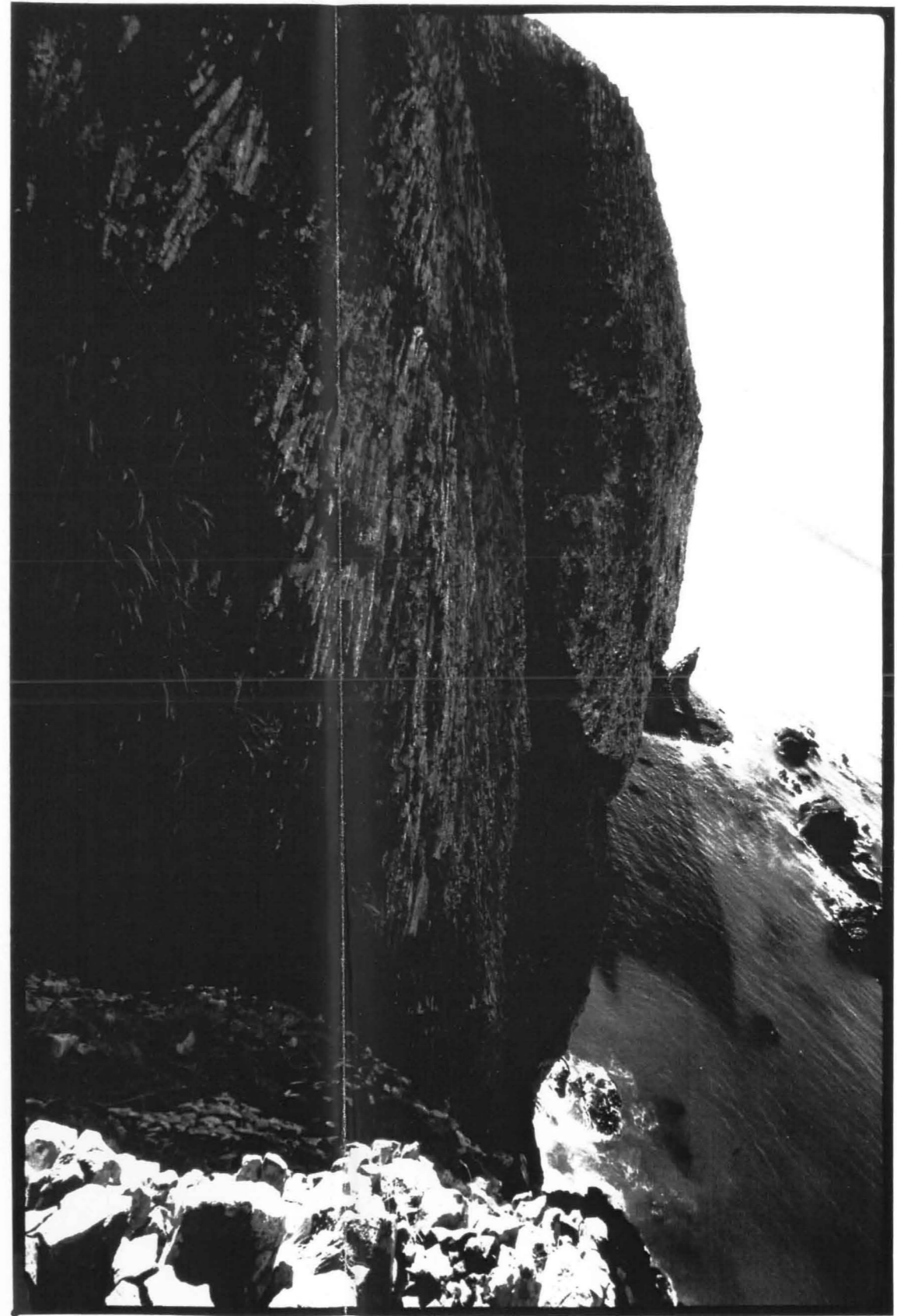


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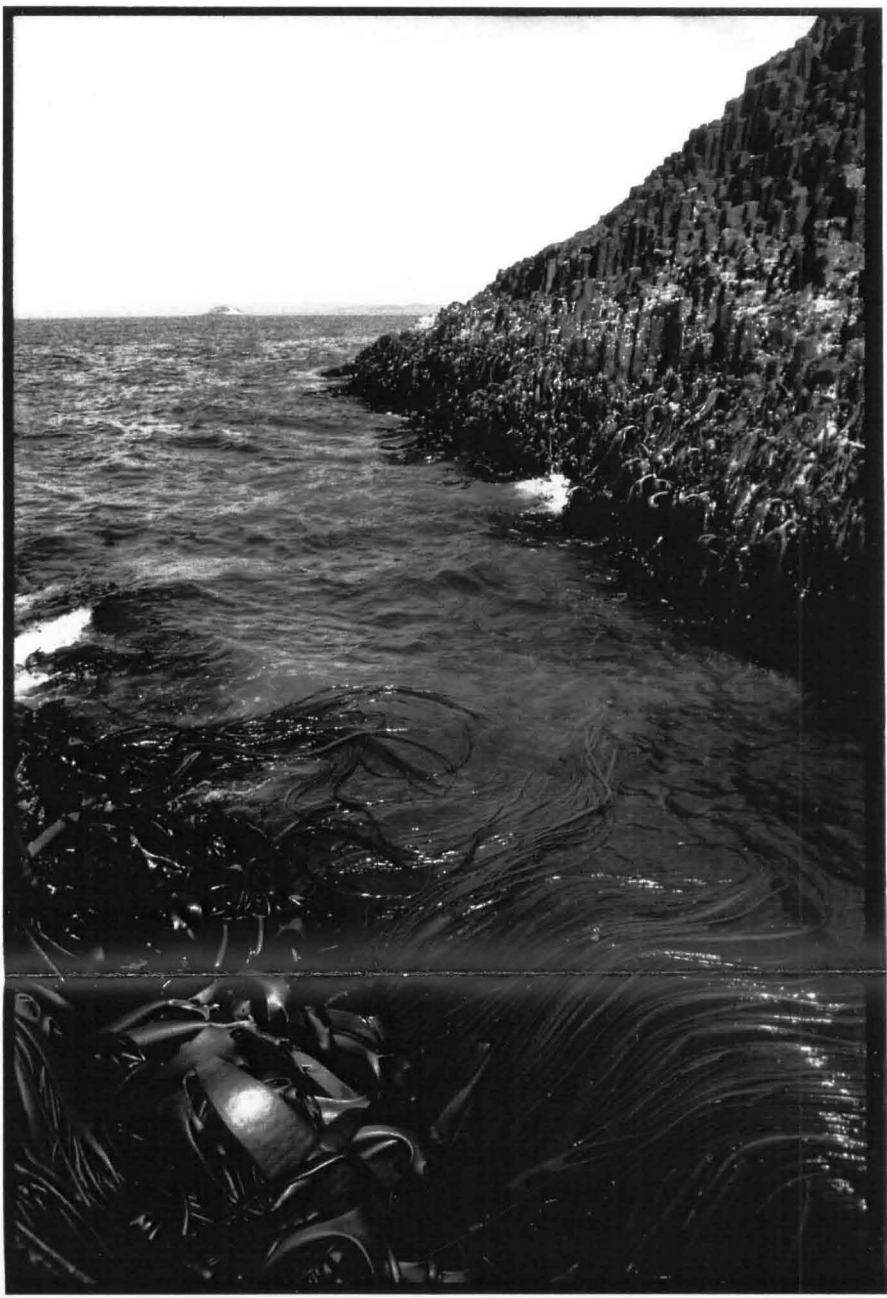


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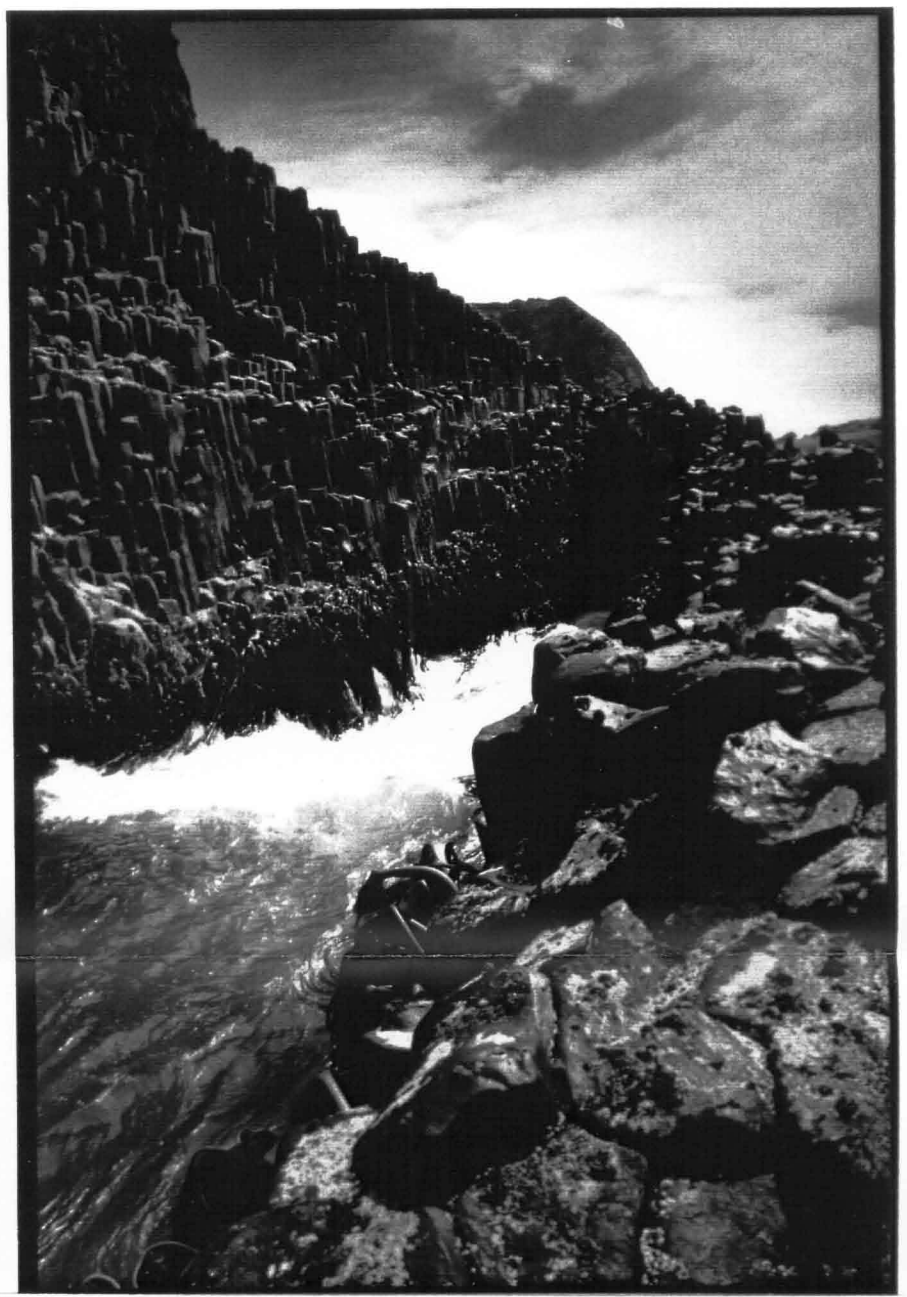


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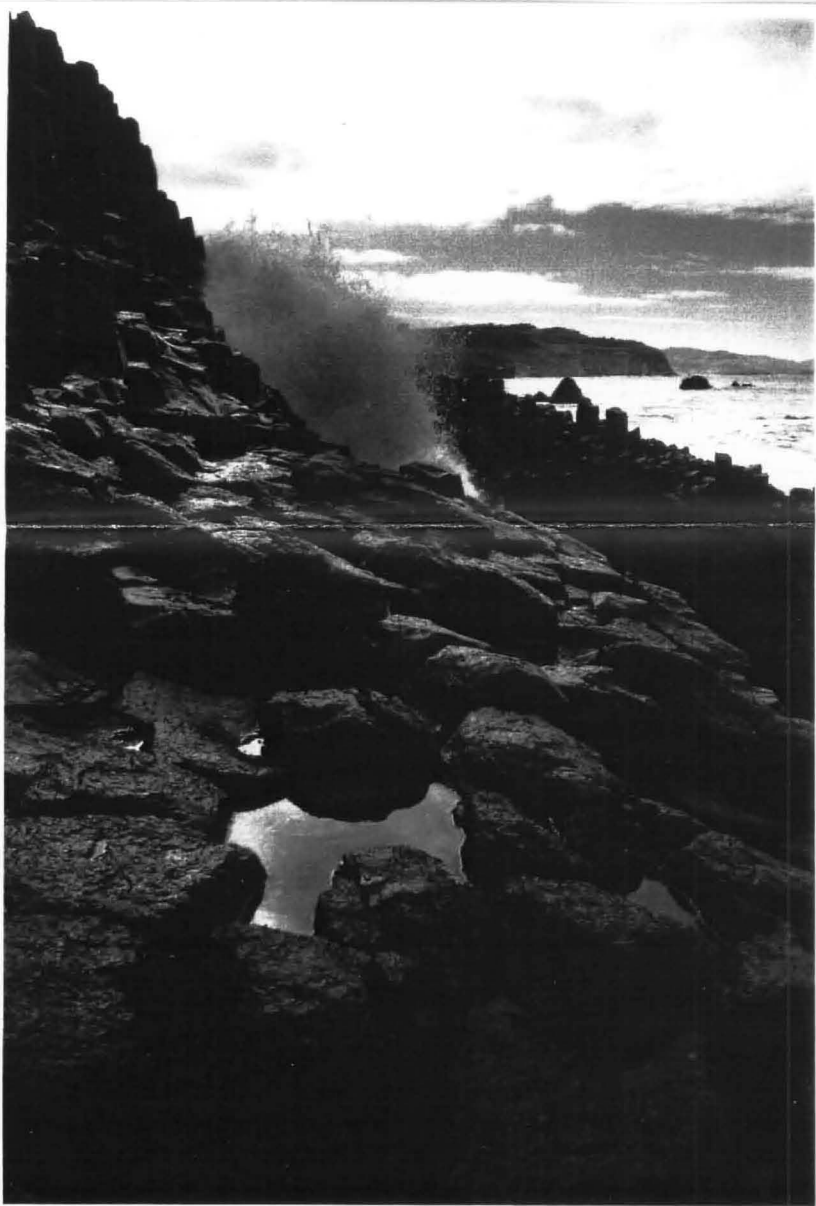


Figure 6.10

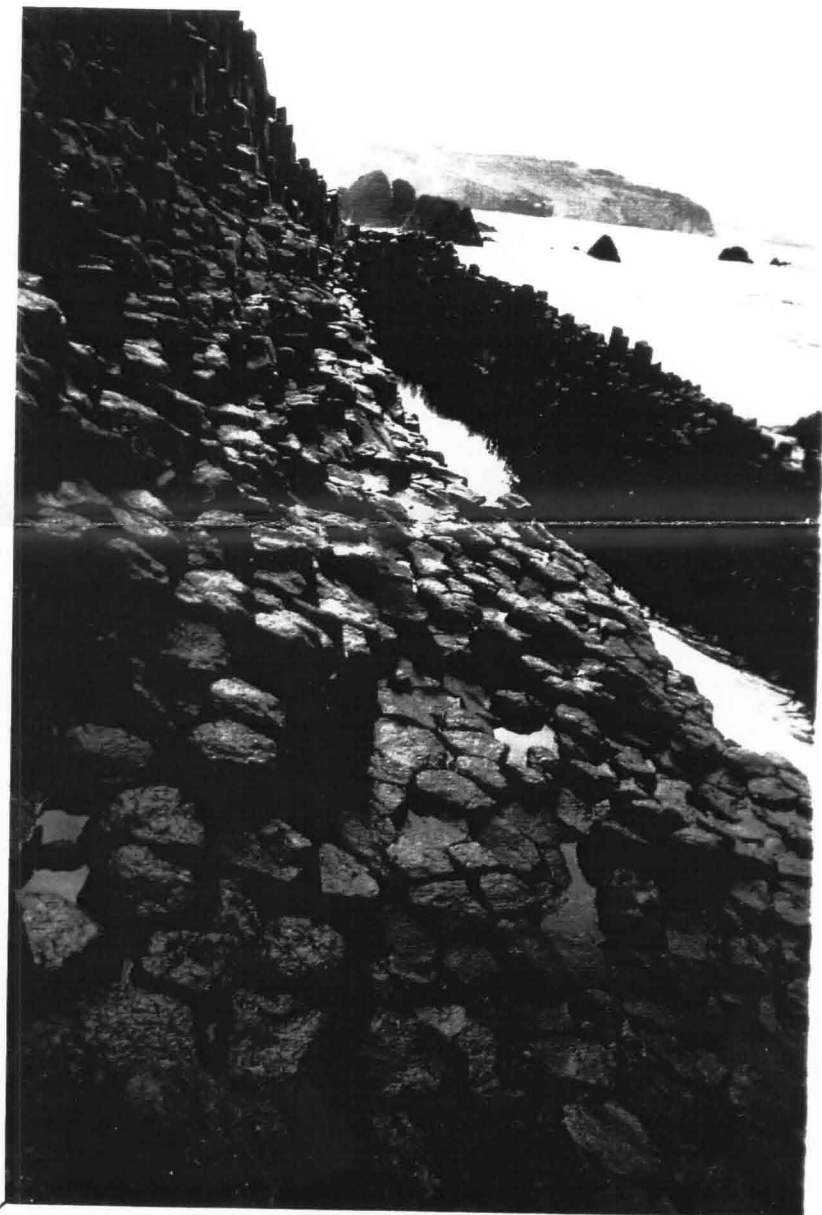


Figure 6.11

Figure 8.1

REPRESENTATION OF
130 LEVEL

Peg
RL 172.0

AREA SUBJECT TO RESTRICTIVE COVENANT

