Water Politics in Victoria

The impact of legislative design, policy objectives and institutional constraints on rural water supply governance

Benjamin David Rankin

Thesis submitted in total fulfilment of the requirements for the Degree of Doctor of Philosophy

Swinburne Institute for Social Research Faculty of Health, Arts and Design Swinburne University of Technology 2017

Abstract

This thesis explores rural water supply governance in Victoria from its beginnings in the efforts of legislators during the late nineteenth and early twentieth centuries to shape social and economic outcomes by legislative design and maximise developmental objectives in accordance with social liberal perspectives on national development. The thesis is focused on examining the development of Victorian water governance through an institutional lens with an intention to explain how the origins of complex legislative and administrative structures later come to constrain the governance of a policy domain (water supply). Centrally, the argument is concentrated on how the institutional structure comprising rural water supply governance encouraged future water supply endeavours that reinforced the primary objective of irrigated development at the expense of alternate policy trajectories.

The foundations of Victoria's water legislation were initially formulated during the mid-1880s and into the 1890s under the leadership of Alfred Deakin, and again through the efforts of George Swinburne in the decade following federation. Both regarded the introduction of water resources legislation as fundamentally important to ongoing national development, reflecting late nineteenth century colonial perspectives of state initiated assistance to produce social and economic outcomes. The objectives incorporated primarily within the Irrigation Act (1886) and later Water Acts later become integral features of water governance in Victoria, exerting considerable influence over water supply decision making. Three case studies examine this process through considering: 1) Attempts at legislative reform in the context of the 1930s depression. 2) Attempts at inter-basin transfer of water resources across the northern dividing range in the context of metropolitan growth and the centralisation of population. 3) Attempts at neo classical, micro economic reform of the rural water supply sector through realigning the legislative and administrative focus. The broad aim of this research is to demonstrate that the objectives incorporated in legislative design have ongoing and typically unintended consequences over decision making. This rests on the legislation being the source of rules and rule interpreting behaviours that inform decision making. Furthermore, the self-reinforcing nature of policy choices occurring within the institution's development ultimately leads decision makers to interpret institutional rules according to cultures, norms and practices that become unique to the institution.

Acknowledgments

It is interesting to reflect back at the end of this process and consider how many people have influenced what is essentially an individual and (at times) isolating pursuit. There are many who have assisted me through this journey and I am grateful to each of them (particularly all of the terrific colleagues I have worked alongside at Swinburne). There are some of course, who deserve special mention here for their encouragement, guidance and support.

To Nick Economou at Monash University and Tony McLeod at the Murray-Darling Basin Authority for generously reading my various drafts and providing valuable feedback.

To the Prime Ministers Centre at the Museum of Australian Democracy (Canberra) for their generous support in the early stages of my research, and the Parliament of Victoria – Parliamentary Library for providing access to resources that greatly assisted this project.

Further to all of the intelligent, hardworking and (above all) welcoming people at the Parliamentary Library who assisted in making the experience of a research fellowship something that I will always cherish. To Bella Lesman, who was always willing to provide assistance when it was requested and listen when I am sure there were far more important things to be done, I am particularly grateful.

To Brian Costar who encouraged me to take on this project and supervised its early stages I am especially grateful, and also to Peter Newton for his advice, assistance and encouragement. To Damon Alexander, who stepped in to supervise this project in its final stages, thank you for all of the (highly valued) advice, support and guidance that assisted in bringing this thesis to completion.

Thank you to my parents, David and Rosemary who encouraged my return to VCE studies later in life, and for providing so much support over so many years.

And finally, to my partner, Loredana for all her kindness, patience and good humour throughout a challenging time in our lives. Thank you.

Statement of Originality

This thesis is my own work and contains no material that has been submitted or accepted for any other degree, diploma or qualification in any university or equivalent institution. It contains no material prepared or previously published by any other person, except where due acknowledgement has been given.

Q?

Benjamin David Rankin

Table of Contents

	Abstract	i
	Acknowledgments	iii
	Statement of Originality	iv
	Table of Contents	v
	List of Figures	vi
	Abbreviations	viii
	Introduction	1
Chapter 1	Governance, Institutions and Rural Water Supply in Victoria	13
Chapter 2	The Beginnings of Rural Water Supply Governance	56
Chapter 3	Consolidation, Amendment, and Interstate Agreements	109
Chapter 4	The McClelland Commission 1936	158
Chapter 5	Victoria's Urban/Rural Water Supply Divide	213
Chapter 6	Objective Shift - Reform and Realignment	266
Chapter 7	Water Politics and Rural Water Governance in Victoria	324
	References List	336

List of Figures

1.1	Average annual rainfall in Australia	16
1.2	Average rainfall Victoria (April to November)	20
1.3	Average rainfall Victoria (October to April)	20
1.4	Example Timeline	22
2.1	Chapter 2 Timeline	58
2.2	Photograph of Alfred Deakin	61
2.3	Photograph of Stuart Murray	77
2.4	The "tour of the Royal Commission"	79
2.5	Irrigation and Waterworks Trusts 1890 – Table	84
2.6	Major Irrigation and Waterworks Trusts 1890 – Map	85
2.7	Alfred Deakin "Striking the Rock"	91
3.1	Chapter 3 Timeline	110
3.2	Photograph of George Swinburne	120
3.3	"Tommy and co."	129
3.4	The "Corowa Conference"	146
4.1	Chapter 4 Timeline	160
4.2	Soldier Settlement allotments	163
4.3	Red Cliffs proposal 1920	164
4.4	"Visibility Restricted"	172
4.5	Photograph of the "McClelland Commission"	179
4.6	Structure of SRWSC in 1936	184
4.7	"Abolition of water rights system"	191
4.8	Photograph of Francis Old	196

5.1(a)	Chapter 5 Timeline part 1	215
5.1(b)	Chapter 5 Timeline part 2	216
5.2	Victoria population growth and centralisation 1891 to 1901	217
5.3	Melbourne's catchments and water supply (1891)	219
5.4	Goulburn Weir c1909	222
5.5	Victoria population growth and centralisation 1951-1961	236
5.6	The MMBW's reflections on urban expansion	238
5.7	The Ronalds' proposal for Melbourne's water supply	245
5.8	SRWSC Storage Capacity and Capital Expenditure (Water Supply)	249
5.9	Henry Bolte Thomas Darcy and Ronald East	252
5.10	Not "one drop"	253
5.11	The "nameless committee"	255
6.1	Chapter 6 Timeline	268
6.2	Photographs of David White and John Paterson	277
6.3	"The Objects of the Commission"	279
6.4	Annual inputs and diversions of salt (River Murray) 1984	289
6.5	RWC Regional Boundaries 1986	306
6.6	Victorian Catchment Management Regions	313

Abbreviations

ANA	Australian Natives' Association		
COAG	Council of Australian Governments		
DWR	Department of Water Resources		
ISRC	Interstate Royal Commission on the River Murray		
LCP	Liberal and Country Party		
MHPC	Melbourne Hydraulic Power Company		
MMBW	Melbourne and Metropolitan Board of Works		
NCSA	National Conservation Strategy for Australia		
NREC	Natural Resources and Environment Committee		
NSESD	National Strategy for Ecologically Sustainable Development		
PBRC	Public Bodies Review Committee		
PWC	Parliamentary Public Works Committee		
RWC	Rural Water Commission		
SRWSC	State Rivers and Water Supply Commission		
TWE	Transferable Water Entitlement		
UAP	United Australia Party		
UCP	United Country Party		
VFU	Victorian Farmers' Union		
WRC	Water Resources Council		

Introduction

This thesis explores rural water supply governance in Victoria from its legislative and administrative beginnings in the 1880s through to the period of reform during the 1980s and early 1990s. It considers the evolution of complex legislative and administrative structures which embodied nineteenth century perspectives on agricultural development and how they later came to constrain the policy environment. This thesis contends that the emergence of a dominant institutional structure in the years following federation exerted a profound influence over the subsequent policy trajectory. It also considers how powerful political institutions can reinforce existing policy objectives at the expense of alternate policy pathways. Further, the thesis explores the historical context of key moments that occur throughout the period of investigation.

The thesis is focused on Victorian rural water supply governance as a political institution. Extending on this "rural water supply governance" refers to the structure of legislative and administrative arrangements, and executive government decisions concerning the supply of irrigation water to Victoria's agricultural areas. Its broad purpose is to consider how the formation of a robust institutional structure concerning rural water supply embodied a distinct legislative focus that later began to limit decision making. In this regard, the thesis aims to establish the extent to which objectives incorporated within rural water supply legislation in Victoria have influenced the evolution of policy settings. The thesis also contends that multiple policy pressures exerted a profound impact on rural water supply governance. In particular, the occurrence of drought (and the limited availability of water resources), population growth and increasingly centralised populations, agricultural development, intergovernmental politics, environmental sustainability and the influence of policial economy. Moreover, it argues that

the significant pressure of the urban/rural water supply divide came to be a determinative factor over rural water supply governance.

The central argument of this thesis is that the institutional structure comprising rural water supply governance was devised to encourage future water supply endeavours that would reinforce the primary objective of irrigated development. This fundamental governance objective reflected the beliefs, values and ideals of those who engaged in its formation. Furthermore, through devising an institutional structure that supported this objective, the political actors involved bound the activities of future political actors including themselves.

The ideas, concepts and approaches that underpin this central argument have been developed through two distinct fields of investigation: the study of Victorian rural water resources law and governance, its history and the development of rural water supply policies; and, the study of political institutions and institutional development, with a specific focus on more recent approaches concerning the field of inquiry known as "new institutionalism".

This thesis consolidates and builds on a small number of influential works exploring rural water resources and policy in Victoria. In *Water Politics in the Murray-Darling Basin*, Connell highlights the complexity of interstate disagreements, divisions and compromises over Australia's iconic river system and the vast agricultural region it supports.¹ He also directs attention to the deleterious consequences of state governments pursuing local agendas and argues for institutional change across the region. In particular, Connell's work provides an insightful account of interstate exchanges concerning the river system from the federation debates through to the combined federal interstate agreement over the National Water Initiative

¹ Daniel Connell, Water Politics in the Murray-Darling Basin, (Annandale, 2007).

in 2007. Clark and Renard provide an authoritative overview of law and policy matters concerning the impact of the Australian framework of water legislation on private rights to water.² The attention given to Victorian water legislation in the colonial era offers valuable insights and an important legal perspective on the legislative initiatives (and innovations) of that era.

The historical accounts of Australian water resources development presented by Smith³ and Musgrave⁴ divide the consideration of these developments into a series of distinct phases (establishment, development, reform). This assists in building an understanding of the significance of legislative and administrative structures to later periods of extensive "development" and the substantial economic and environmental consequences that emerged as a result. Smith also provides a valuable introduction to the current pressures facing water resources management in Australia and offers a considered discussion of their policy implications. In his PhD dissertation *Watershed or Water Farce? – An inquiry into the politics of rural water allocations in Victoria*, Hancock argues that the "pace and process" of changes in government approaches to rural water allocations from the commencement of reforms in the early 1980s became a strong source of anxiety and resentment among irrigators.⁵ Hancock points to the process of government reform in the pursuit of sustainability as having placed significant restrictions of what he argues are the "traditional rights" of the farming community.

² Sandford D Clark and Ian A Renard, *The law of allocation of water for private use*, Australian Water Resources Council – Research Project, (Melbourne, 1972).

³ David Ingle Smith, Water in Australia – Resources and Management, (Melbourne, 1998).

⁴ Warren Musgrave, 'Historical Development of Water Resources in Australia – Irrigation Policy in the Murray-Darling Basin', in Lin Crase (ed.), *Water Policy in Australia: the impact of change and uncertainty*, (Washington D.C., 2008).

⁵ Barry Hancock, *Watershed or Water Shared? An Inquiry into the Politics of Rural Water Allocations in Victoria*, (PhD diss., Swinburne University of Technology, 2010).

His account is particularly revealing of the influence that the earlier trajectory of policy held in shaping farmers' perceptions of their social and economic roles in the advancement of agricultural development.

Powell's *Watering the Garden State: Water, land and community in Victoria 1834-1988* emphasises the significance of water policies and infrastructure that shaped the geographical, historical and environmental landscapes of Victoria.⁶ Primarily concerning events in water resources management prior to the 1980s, Powell engages in an historical account of the overall development of the Victorian water sector and offers further insights into political, administrative and engineering aspects of Victorian water management. This also includes a brief focus on the conflict between urban and rural water sectors over waters flowing north of the dividing range.⁷ Powell also makes a poignant observation on the emergence of water reform in Victoria through suggesting the threat it posed to 'the dearly held assumptions on which traditional professional expertise and institutional arrangements had been based.'⁸

In his edited work *Water Policy in Australia – The Impact of Change and Uncertainty*, Crase combines important perspectives on the legal, economic, social and environmental complexities that presently occupy Australian water resources management.⁹ In their chapter "The Institutional Setting", Crase and Dollery advance the view that institutional analysis 'is well equipped to trace the repercussions of...significant but disparate influences over water

⁶ J M Powell, *Watering the Garden State – Water, land and community in Victoria 1834-1988*, (North Sydney, 1989).

⁷ Ibid, 241-244.

⁸ Ibid, 285.

⁹ Lin Crase (ed.), Water Policy in Australia: the impact of change and uncertainty, (Washington D.C., 2008).

policy formation.¹⁰ Moreover, they emphasise the benefit of institutional analysis as a 'framework for understanding the evolution of water policy in a changing social context.¹¹ They offer a persuasive discussion of institutions as "governance structures" with particular reference to the effects of earlier and more recent institutional arrangements over the hierarchical distribution of water property rights in the Australian jurisdictions.

This summary of the literature is indicative of the importance of previous and existing institutional structures to rural water resources governance and points to the potential value of an approach informed by "new institutionalism" in illuminating earlier policy decisions concerning rural water supply. The development of ideas surrounding the influence of institutions in political life has increasingly focused around the broad approach of new institutionalism. This approach intentionally separates institutions from a more traditional static contextual understanding and locates them centrally in the determination of political and social outcomes.

Several contributions to this field of study have established the basis of new institutional approaches in political and social inquiry. Four important contributions which directly inform the thesis are briefly introduced here: March and Olsen, who are often credited with the resurgence of institutional analysis in the policy sciences as a result of their emphasis on institutions as 'collections of structures, rules, and standard operating procedures that have a partly autonomous role in political life;'¹² North also recognises the role of institutions in terms

¹⁰ Lin Crase and Brian Dollery, 'The Institutional Setting', in Crase, *Water Policy in* Australia, 75.

¹¹ Ibid.

¹² James G March and Johan P Olsen, 'Elaborating the New Institutionalism', in Sarah A Binder, R A W Rhodes and Bert A Rockman, *The Oxford Handbook of Political Institutions*, (Oxford, 2006), 4.

of rule provision and enforcement, but further emphasises the role of "informal constraints" in shaping the process of decision making within the institutional environment;¹³ Pierson's focus on the fundamental origins and design of institutions, demonstrates that these processes can result in an environment that later influences the ability of the institution to respond to adaptation and change in the external environment;¹⁴ and, Hall, whose analysis of economic policy developments in France and Britain indicated the importance of understanding how the "political and policy histories" unique to those countries guided these developments.¹⁵

These works have provided a foundation for the synthesis of ideas that are advanced by this thesis. They indicate that applying the broad study of new institutional analysis offers a perspective on rural water supply policy capable of identifying further pressures that may have influenced decision making. In particular, this approach allows for emphasis to be placed on the collective influence of institutions, policies and actors. Moreover, the dual pillars of historical analysis and new institutionalism combined, form an important structure supporting the conceptual framework upon which this thesis is constructed.

This thesis provides a thorough and comprehensive account of the evolution of rural water supply governance in Victoria. It builds on existing research by producing a focused study of institutional and policy development in the specific field of rural water resources policy; and, by bringing alternative perspectives to existing approaches in the broader field of new

¹³ Douglass C North, Institutions, Institutional Change and Economic Performance, (Melbourne, 1996).

¹⁴ Paul Pierson, *Politics in Time: History, Institutions, and Social Analysis*, (Princeton, 2004); see also: Paul Pierson, 'The Limits of Design: Explaining Institutional Origins and Change', Governance, Vol 13(4) (2000), 475-499.

¹⁵ B Guy Peters, *Institutional Theory in Political Science: The 'New Institutionalism'*, Second Edition, (London, 2005), 72; see also: Peter Hall, *Governing the Economy: The Politics of State Intervention in Britain and France*, (New York, 1986).

institutionalism. Through the use of primary resources from the colonial/federation era, an important link is established between Deakin and Swinburne in respect of the development of water legislation in Victoria. Moreover, the analysis of political discourse in the colonial/federation period indicates that the individual and collective efforts of legislators was far more substantial than previously understood. This thesis also provides the first comprehensive account of the 1936 McClelland Royal Commission, its findings and recommendations, and relates this account to the prevailing political debate during that time. The thesis further places a strong focus on two highly influential but temporally disconnected policy debates that reveal a far greater political and policy significance to Victoria's urban/rural water supply divide. Ultimately, this thesis establishes the extent of the comprehensive water reform process that took place in Victoria, emerging as it did out of multiple lines of exhaustive investigation and inquiry, and indicative of a developing governmental focus on sustainable development.

To this end, the thesis is focused on the formation of the framework of rural water supply legislation from the last decades of the colonial period under the guidance of Alfred Deakin, and further amendments to this legislative framework pursued by George Swinburne in the years following federation. From this period, the thesis follows developments in the policy trajectory of rural water supply governance through to the later period of legislative reform commencing in the early 1980s. In line with the approach advanced by Crase and Dollery, the thesis argues that two distinct policy developments have played a significant role in shaping the overall policy trajectory: the investigations of the McClelland Royal Commission into amending the *Water Act* (1928); and, the larger influence of a distinct urban-rural divide on water supply that emerged in the decade after federation and reappeared during the era of the Bolte government. These investigations further assisted in building an additional focus on the

relationship between the development of the legislative framework and the overriding objectives of the political actors responsible for its creation.

The research towards this thesis was conducted as a document and discourse analysis through the utilisation of multiple primary research materials. Various acts of parliament have assisted in explaining the effect of specific clauses in terms of the development of policy agendas. Victorian and Commonwealth parliamentary debates, and the reports of the federal conventions are all utilised to trace the policy discourse across the period of investigation. The analysis of various government publications including royal commission reports and testimony, parliamentary inquiries and committee reports, policy documents and ministerial statements revealed insights into the policy discourse and assisted in mapping the progression of specific events significant to the research. The extensive reports of the State Rivers and Water Supply Commission provided a valuable insight into government and agency attitudes to the development of irrigation and irrigated closer settlement in Victoria, and a source of statistical data relevant to capital expenditure, water supply and storage, and irrigation development. In addition, the research has drawn on academic texts including books, book chapters and journal articles, various newsprint sources, and various electronic media sources. Much of the primary research was gathered at the Victorian Parliamentary Library during a Research Fellowship, and the Australian Prime Ministers Centre at the Museum of Australian Democracy (Old Parliament House) Canberra, during a Research Summer Scholarship.

The structure of this thesis is presented as two parts and seven chapters. **Part One** of the thesis comprises chapters 1 through 3, providing an introduction to the key themes of the thesis before considering the beginnings of water legislation in Victoria, how this key framework developed,

how this development was consolidated, and how the initial objectives of Victorian rural water supply governance were established.

Chapter 1 introduces the key themes of the thesis against a background of existing concepts and approaches. It provides an outline of climatic influences including the variability of rainfall and run-off in Australia and Victoria and the related environmental pressures of drought and water shortage. It introduces an overview of "new institutionalism" in political science and its applicability to the study of rural water supply governance. It further provides a brief historical background of colonial liberalism, agrarianism, land reform and land settlement in Victoria.

Chapter 2 explores the contribution of Alfred Deakin to the body of Victorian water legislation and the emergence of his innovative approaches to legislative development. It considers Deakin's early philosophical influences and the inclusion of social liberal notions in his legislative focus (including his well-known Irrigation Act), and places specific emphasis on his view of "national" economic development. It considers the significance of Deakin's role as a political actor engaged in the development of new institutional forms, and whether there is merit in the consideration of Deakin as an institutional entrepreneur. The chapter also briefly examines the role of Premier Duncan Gillies in introducing the legislation that secured the governance of Melbourne's water supply.

Chapter 3 considers the consolidation of water legislation through legislative amendments immediately after federation and their contribution to a robust legislative framework. It incorporates the combined influence of Deakin and Stuart Murray in the revision of the initial legislative framework. It further examines the "reinvigoration" of developmental liberal policies under William Irvine, his role in "grooming" Swinburne for the ministry, and

Swinburne's "formative political moment" alongside Irvine and Deakin at a meeting to revive the policy focus on irrigation. The chapter then focuses on Swinburne's legislative contributions before considering Deakin, Swinburne and Murray's efforts in further informing the federal water debate, including their specific belief in the Inter State Commission as the decisive body in determining "federal" water disputes.

Part Two of this thesis comprises the case studies that form the focus of chapters 4 through 6. The case studies advance the core ideas of the thesis and argue how the robust institutional structure that Deakin, Murray and Swinburne created later developed into a constrained policy environment. They are presented in support of the contention that this institutional structure contributed to an extended period of institutional and policy stability that resulted in a number of unintended consequences for later decision makers.

Chapter 4 considers the case study of the McClelland Royal Commission. The principal factors that result in its formation are outlined, including the accumulation of settlers' arrears and the SRWSC's massive loan liabilities stemming from an over-expansion of irrigated settlement. The chapter then examines the McClelland Commission's inquiry and recommendations for legislative reform with a particular focus on its views regarding the government policy of "forced development". The chapter analyses the Dunstan government's subsequent policy decisions as an example of a self-reinforcing policy trajectory where the continued assertion of irrigated development resulted in a formalised departure from the objective of economic return.

Chapter 5 explores the case study of the urban/rural water supply divide, and focuses on two examples where the Melbourne and Metropolitan Board of Works attempted to secure an inter-

basin transfer of water across the northern dividing range. First, in its proposal in 1898 to divert the Acheron River, then in the later proposal to divert the waters of the Big River (both northern flowing tributaries of the Goulburn River). The chapter also examines how the notion of an urban/rural water supply "divide" developed across two distinct periods of governance to the point of becoming an effective limit on decision making through the "embeddedness" of institutional rules.

Chapter 6 examines the commencement of a sustained period of rural water supply reform with the inception of the Public Bodies Review Committee (a joint-select committee with wide-ranging powers). It considers how this committee with a broad focus on managerialism, brought accountability and efficiency to Victoria's "bloated" public agency sector and started a comprehensive process of reform of Victorian rural water supply governance. The chapter analyses the realignment of these robust governance arrangements through a process of restructure and reorganisation, and how this process later attached to a broader federal reform agenda. Each of these chapters also serve to expand the historical context of fundamental rural water supply governance issues and the pressures that they can exert on the policy process.

Chapter 7 is the final chapter and presents a brief conclusion to the thesis. It contends that the legislative measures discussed collectively contributed to the formation of an especially robust institutional structure which above all else, intended to advance the primary legislative objective of irrigated development. It further argues that this contributed to an extended period of institutional and policy stability that resulted in a number of unintended consequences for later decision makers. Moreover, it contends that the longest period of rural water supply governance in Victoria exhibited tendencies characteristic of path dependent policy development.

Part One

Chapter One: Governance, Institutions and Rural Water Supply in Victoria

This chapter intends to introduce the principal ideas, concepts and themes that are advanced in support of the central focus of this thesis - rural water supply governance in Victoria. It develops the foundation of key themes of the thesis against a background of existing concepts and approaches. Essentially, it offers the context within which the central ideas of the thesis are advanced. It begins with an outline of climatic influences including the variability of rainfall and run-off in Australia and Victoria, and the related environmental pressures of drought and water shortage. This introduces the important influence of these pressures on water supply generally, and their relationship with the fundamental issues that pertain to rural water supply governance. It also introduces a brief contextual discussion of Australian water resources development through presenting an approach that is presented in the water resources literature. It considers water resources development in Australia according to three distinct phases establishment, development, and reform. Following this, an introduction and overview of "new institutionalism" in political science is presented, highlighting its applicability to the study of rural water supply governance. The presentation of this overview reflects the importance of new institutionalist ideas and approaches to the progression of the ideas advanced by this thesis. As an introduction to the historical focus of the thesis, the last section of the chapter establishes the historical background of colonial liberalism, agrarianism, land reform and land settlement in Victoria, and their collision with the climatic realities associated with rainfall variability, drought and flood across the "northern plains". This provides an important contextual background which precedes the subsequent era of legislative development, and it also presents an important introduction to the political ideas, debates and conflicts that characterise the period of legislative actions over rural water resources.

Water Governance, Water Availability and the Phases of Development

The central focus of this thesis is rural water supply governance in Victoria, and the thesis is directly concerned with the interconnected legislative and administrative state "spheres" represented by the body of state legislation, the executive government, and the various statutory authorities responsible for the management of rural water resources; and, a third federal/inter-governmental sphere incorporating the limited powers of the commonwealth government and inter-state agreements over shared water resources. While the subsequent chapters are predominantly focused on rural water supply governance issues that are primarily restricted to the state legislative and administrative spheres, the interaction between Victorian governance arrangements and those of other states and the commonwealth are considered at certain points throughout.¹⁶

This section presents two important themes that concern rural water supply governance in Victoria and in the other Australian state jurisdictions. First, it considers the climatic influences of water availability, variability and drought. The limited availability and high variability of water in Victoria and Australia (including the constant threat of drought and water shortage) have been a constant influence in terms of Australian water resources management. In effect, the limited nature of water supply in Australia is a determinative feature of its water supply politics. This is further reflected in the attention that has been given to the notion of the "phases of development" of Australian water resources. The introduction to these phases assists in developing an understanding of the significance of legislative and administrative structures to later periods of extensive "development" and the substantial economic and environmental

¹⁶ Specifically, chapters 2 and 6 incorporate a considered discussion of this interaction between Victorian authorities, the Commonwealth and other states.

consequences that emerged as a result. Moreover it serves as an important "thematic" introduction to the thesis as the broad structure of this thesis is representative of this progression. In addition, indicating the significance of these phases to the progression of events in the thesis connects the specific discussion of rural water supply governance in Victoria to the broader understanding of water resources development and governance in other Australian state jurisdictions.

Water Availability, Variability, and Drought

Water is a resource that is fundamental to all societies. It underpins human existence in multiple contexts from meeting basic biological needs to higher level social, economic and political dimensions.¹⁷ From an ecological perspective water dominates the planet. The oceans, ice caps, glaciers, lakes, rivers and streams occupy by far the largest area of the planet's surface, yet very little of this water is available for use:

Only 2.5% of the world's water is not salty, and of that two-thirds is locked up in icecaps and glaciers. Of the remaining amount, subject to the continuous hydrological cycle, some 20% is in areas too remote for human access, and of the remaining 80% about three-quarters comes at the wrong time and place - in monsoons and floods - and is not captured for use by people. The remainder is less than 0.08 of 1% of the total water on the planet. About 70% of this water is used in agriculture to grow the food and fibre on which human society depends. About 30% is used for municipal water supplies, for households, and for industry. Water is also used to generate electricity (hydropower and cooling for thermal power), for navigation, and for leisure. Finally, water is also required to sustain rivers and wetlands, to dilute pollution, and to wash away salts that would otherwise destroy farmlands.¹⁸

¹⁷ Diana Day, 'Water as a social good', *Australian Journal of Environmental Management*, Vol 3(1) (1996), 26-27.

¹⁸ World Water Council, World Water Vision Commission Report: A Water Secure World – Vision for Water, Life and the Environment, (Marseille, 2000), 11-12.

The lack of available fresh water in Australia has been a defining factor in the formation of governance arrangements for water supply in each of the Australian states, and is a reflection of the fact that of all the inhabited continents on earth Australia is the driest.¹⁹ This fact is considered through an exploration of the limitations of water availability in Australia and Victoria, and an additional focus on the occurrence of drought in Victoria.



Figure 1.1 – Average annual rainfall in Australia. Source: Bureau of Meteorology²⁰

¹⁹ Smith, Water in Australia, 14.

²⁰Australian Government, Bureau of Meteorology, Retrieved: <u>http://www.bom.gov.au/jsp/ncc/climate_averages/</u> rainfall/index.jsp, (October 14 2016).

Water in Australia and Victoria – spatial and temporal variability

The overwhelming majority of precipitation in Australia occurs as rain and 'only in the highest mountains in the south-east of the continent and in western Tasmania is snowfall important.²¹ Smith notes that there are also considerable spatial differences in annual rainfall and runoff averages for Australian drainage divisions.²² The most obvious of these being that rainfall gradually decreases away from the coastal regions with the two exceptions of the central western and southern coastlines where the desert meets the sea (Figure 1.1 above). The limited water availability in Australia is further subject to considerable temporal variations which reflect the continent's standing of also having the largest inter-annual variability in rainfall.²³ Australian catchment areas include large inland areas with low annual precipitation 'and because precipitation variability increases with decreasing precipitation, this also dominates the variability of run-off.'24 However, Australia's exceptionally low population obscures the harsh reality of its particularly dry climate. In terms of run-off per capita, the Australian continent appears "well endowed" as a consequence of its comparatively small population.²⁵ Despite the Australian continent having the lowest annual average run-off for the planet (420mm in comparison to the world land surface average of 660mm),²⁶ in terms of average annual run-off per capita, Australia compares quite favourably. Compared to global averages of run-off per capita, Australia has three times as much water available per person than Asia,

²⁶ Ibid, 19.

²¹ B R Davidson, Australia Wet or Dry? – The Physical and Economic Limits to the Expansion of Irrigation, (Carlton, 1969), 6-7.

²² Smith, *Water in Australia*, 12. While there are more recent works that discuss Australia's high variability of rainfall and runoff such as John Pigram's 'Australia's Water Resources: from use to management' (2007), Smith's work offers a more detailed consideration of how Australia's specific hydrology relates to its water resources policy history.

²³ Smith, Water in Australia, 14.

²⁴ Ibid, 15.

²⁵ John J Pigram, Australia's Water Resources: from use to management, (Collingwood, 2007), 21.

Africa or even Europe.²⁷ However, the overall averages of water availability do not correlate with the location of population (particularly in southern Australia), and as Pigram explains, 'the location of water resources and their availability in space and time, relative to agricultural and industrial resources and population concentrations, are most relevant to their potential in national development.'²⁸

In terms of mean annual runoff as a percentage of runoff, the most favourable locations for water availability are in the monsoonal north while the continent's most populous regions in the south are restricted to the median range. Furthermore, water availability in the Murray-Darling Basin is only just placed in the median range, yet as a drainage division it accounts for more than 50 per cent of Australia's water consumption.²⁹ In effect, roughly half the Australian population is reliant on mean annual runoff at just 10 per cent of the average annual runoff. The major implication of this has been that the maintenance of a secure supply of water has traditionally required Australian dam storages to be 'twice the volume of the world average and nearly six times larger than the average for Europe.'³⁰

The extent of water resources available in Victoria is complicated by the demands placed on the River Murray as a multi-state shared resource, which effectively means that the Goulburn River is Victoria's only significant river in terms of mean runoff.³¹ The Australian Water Resources Report (2005) combined the available data for each of the relevant drainage

²⁷ Smith, Water in Australia, 84.

²⁸ Pigram, Australia's Water Resources, 21.

²⁹ National Water Commission, *Australian Water Resources 2005*, Retrieved: <u>http://www.water.gov.au</u>, (November 26 2012).

³⁰ Smith, Water in Australia, 16.

³¹ Powell, Garden State, 6.

divisions and estimated that Victoria's share of annual rainfall was 146,928 Gigalitres (GL) or approximately five per cent of total annual rainfall in Australia. Runoff in Victoria for the same period was estimated at 14,266 GL or approximately 10 per cent of rainfall.³² This also reflected national averages which demonstrated that evapotranspiration (the combined sum of evaporation from the land and water and plant transpiration from all surface sources into the atmosphere) accounts for approximately 90 per cent of the rain that falls on the Australian continent.³³ The pattern of rainfall in Victoria is also subject to considerable inter-annual variability with higher rainfall averages during the southern wet season (Figure 1.2 below) which are typically the result of frontal systems, and comparatively lower averages during the northern wet season (Figure 1.3 below).³⁴ Moreover, the majority of Victorian rainfall occurs in the southern and eastern regions of the state. The natural scarcity and unreliability of water in Australia (and Victoria) is magnified by the "recurrent hazards" of drought and flood,³⁵ and it is not unusual for extensive periods of drought to occur in tandem with devastating floods as a consequence of torrential rainfall. For the purposes of rural water supply governance, the emphasis of this thesis is on the influence of drought and water shortage, but it should also be noted that floods are also a significant natural phenomenon.

³² National Water Commission, *Australian Water Resources 2005*, Retrieved: <u>http://www.water.gov.au</u>, (November 26 2012).

³³ National Water Commission, *Australian Water Resources 2005*, Retrieved: <u>http://www.water.gov.au</u>, (November 26 2012).

³⁴ Australian Government, Bureau of Meteorology, Retrieved: <u>http://www.bom.gov.au/jsp/ncc/climate_averages/</u> rainfall/index.jsp?period=wet&area=vc#maps, (October 14 2016).

³⁵ Pigram, Australia's Water Resources, 28.



Figure 1.2 – Average rainfall Victoria (April to November) – Source: Bureau of Meteorology³⁶



Figure 1.3 – Average rainfall Victoria (October to April) – Source: Bureau of Meteorology³⁷

³⁶ Australian Government, Bureau of Meteorology, Retrieved: <u>http://www.bom.gov.au/jsp/ncc/climate_averages/</u> rainfall/index.jsp?period=dry&area=vc#maps, (October 14 2016).

³⁷ Australian Government, Bureau of Meteorology, Retrieved: <u>http://www.bom.gov.au/jsp/ncc/climate_averages/</u> rainfall/index.jsp?period=wet&area=vc#maps, (October 14 2016).

Drought in Victoria

Of the climatic stresses that affect the Australian landscape drought has particularly enduring environmental consequences, and an ongoing impact in terms of social, economic and political stability. Between 1850 and 2010 droughts were recorded in Victoria in every decade except two. Keating's monograph The drought walked through: A history of water shortage in Victoria highlights four instances of prolonged drought that have caused a lasting impact on the state: 1877-1881, 1895-1902, 1914-1920, and 1937-1945.38 More recently, a fifth prolonged drought occurred in Victoria between 1998 and 2010. Each of these drought periods has held significant implications for Victorian water resources governance, and in this respect, the occurrence of drought has typically revealed the prominent factors that have influenced political action on water resources. In times of drought policy-makers have often appeared caught between the need to publicly project an intention for swift and direct action and the reality that such crises are often a reflection of inadequate policy to begin with. To this end, Keating further notes that drought has never 'engendered a calm, objective analysis of necessary action in advance of the event.³⁹ Moreover, the spectre of drought has routinely given rise to a unique brand of Australian "water fundamentalism",⁴⁰ and in this regard Victoria's water crises are equally marked by public outrage and political recriminations.

As a visual aid to demonstrate the significance of drought to rural water supply governance in Victoria, a timeline (Figure 1.4 below) is incorporated in each of the following chapters. The period of years covered by each chapter are shown in the centre bar of the timeline and are either highlighted red (to indicate drought years), or highlighted green (to indicate non-drought

³⁸ Jenny Keating, The drought walked through: A history of water shortage in Victoria, (Melbourne, 1992).

³⁹ Ibid, 272-274.

⁴⁰ Powell, *Garden State*, 16.

years). Significant events that occur throughout each chapter are layered to the left and right of the centre bar – for example, legislation immediately concerning rural water supply, parliamentary inquiries and royal commissions' charged with investigating water issues, changes in government, and the completion of major water supply works. The timeline is intended to assist in demonstrating the correlation between significant periods of water shortage and the occurrence of state (and occasionally interstate) political action.

	1920	Acquisition of Red Cliffs for Soldier Settlement
	1921	
	1922	
	1923	
Torrumbarry Lock/Weir Completed	1924	
	1925	Royal Commission on Soldier Settlement (Vic)
	1926	
	1927	
Eildon Reservoir (Stage One) Completed	1928	Water Act (1928)
Election of Hogan Government (Minority)	1929	Beginning of depression
	1930	
Premiers' Plan	1931	
Formation of Argyle Government (Coalition with Country Party)	1932	Closer Settlement Act (1932) Formation of Closer Settlement Commission
	1933	
	1934	
Formation of Dunstan Government (Minority)	1935	
Royal Commission on the Expediency of Amending the Water Act 1928 (The McClelland Commission)	1936	Hume Reservoir (Stage One) Completed
	1937	Water Act (1937)
	1938	
	1939	
	1940	
	1941	
	1942	
	1943	
Entire capital liability of irrigation works passed to State	1944	Water Act (1944)

Figure 1.4 – Example of Timeline (from Chapter Four)

The limited availability of water, the variability as to when it is available and the ever-present threat of drought have continually presented challenges to the effective governance of rural water supply. As a result, the threat of water shortage and its significant social, economic and political implications have exerted a considerable influence over the development of water resources in Australia.

The phases of water resources development in Australia

Water resources development throughout the Australian States is broadly considered as having occurred within three distinct phases. First, as an "establishment" phase that encompasses the emergence of institutional settings in the colonial era and immediately after federation through to 1910 (approximately). Following this, focus is given to a second "development" phase that commenced soon after and continued until the early 1980s. This phase is 'marked by principally government-sponsored extensive dam building and irrigation development.⁴¹ The third "reform" phase is considered to have commenced in the 1980s (approximately) and has continued through to the present day. This phase is distinguished by the emergence of the *mature water economy* and a fundamental shift in attitudes towards irrigation and the sustainability of existing water resources management practices.⁴² In terms of this thesis, the phases provide a useful introduction to the significance of legislative and administrative structures as they pertain to later periods of "development" and the substantial economic and environmental consequences that later emerge. Each of these phases are broadly represented throughout the subsequent chapters. For example, the events concerning chapters two and three

⁴¹ Musgrave, *Historical Development of Water in Australia*, 29.

⁴² Ibid, 28-41. Smith also covers the phases of water resources development in greater detail: Smith, *Water in Australia*, 142-190.

are located within the "establishment phase", chapters four and five occur during the "development phase", and chapter six marks the commencement of the "reform phase".

The 'establishment' phase (1880 – 1910)

The establishment phase was occupied with events which occurred largely as a result of "climatic determinism³⁴³ and the politicisation of rural water supply during the 1880s and beyond. This resulted in the formation of legislative measures that restricted the control of water supply to colonial/state governments and provided for its allocation by statutory authorities.⁴⁴ These early legislative devices were a fundamental recognition of the high variability of the Australian climate as well as the fundamental unsuitability of the English system of riparian law to Australian conditions.⁴⁵ Federation only had a limited effect on this legal/institutional framework as the Commonwealth Constitution did not intrude on the states responsibilities 'for the management of natural resources.'⁴⁶ Rather, the major interstate issue occurred between Victoria, New South Wales and South Australia over the waters of the River Murray and directly led to the inclusion of section 100 in the Constitution: 'The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.'⁴⁷ Smith also notes that across the Australian colonies the expansion and progression into self-government also witnessed the basis of water management effectively

⁴³ Musgrave, *Historical Development of Water in Australia*, 31.

⁴⁴ Helen Mulligan and John Pigram, Water Administration in Australia, (Armidale, 1989), 3-4.

⁴⁵ These issues are considered at length throughout chapters two and three, although, as a brief introduction: the riparian law of England refers to the common law conception of the right of riparian landholders to "take" and "use" waters flowing past their land, to the extent that their usage of the water doesn't "unreasonably" impact the usage of other riparian landholders either upstream or downstream.

⁴⁶ Mulligan and Pigram, *Water Administration in Australia*, 7.

⁴⁷ Commonwealth of Australia Constitution Act 1900 (UK) s 100.

divided into urban and rural regions, with each region administered by separate statutory authorities.⁴⁸ These developments have contributed to a broader divide between urban and rural water users, and Crase reflects that this has largely been influenced by the attachment of water resources allocation to 'social and strategic objectives associated with non-metropolitan economic development.⁴⁹

The 'development' phase (1910 – 1980)

The phase of water resources development after federation is more effectively considered as a process of two stages: an initial stage which is considered to commence after federation and continue through to the conclusion of the Second World War; and, an advanced stage that followed through the post-war era until the early 1980s.⁵⁰ The initial stage is marked by the rapid expansion of irrigation and closer settlement (and soldier settlement) in Victoria, New South Wales and South Australia, and this was further supported by the agreement between the three States (and the Commonwealth) over the use of the River Murray waters.⁵¹ As Powell suggests, 'the thread linking the colonial and early federal periods is readily traced in a stiffening resolve to subdue, harness and transform the natural environment, and in the requisite consolidations of technical expertise.⁵² To this end, the period also witnessed the construction of major storages including the Hume Dam (1936) and Lake Victoria (1928) on the River

⁴⁸ Smith, *Water in Australia*, 143-144; see also: J M Powell, 'Snakes and Cannons: Water Management and the Geographical Imagination in Australia', in Stephen Dovers (ed.), *Environmental History and Policy – Still Settling Australia*, (Melbourne, 2000), 50-54.

⁴⁹ Lin Crase (ed.), Water Policy in Australia: the impact of change and uncertainty, (Washington D.C., 2008), 2.

⁵⁰ See: Smith, *Water in Australia*, 142. In part, this follows Smith's approach as he preferred to regard them as separate phases of development, although as Musgrave argues, the fundamentals of water development throughout the entire period were consistent. See also: Musgrave, *Historical Development of Water in Australia*, 35.

⁵¹ See: Connell, *Water Politics in the Murray-Darling*, 92-95.

⁵² Powell, Water Management and the Geographical Imagination, 55.

Murray, the Eildon Dam (1927) on the Goulburn River in Victoria and the Burrinjuck Dam (1927) on the Murrumbidgee River in New South Wales. This expansion also highlighted significant issues with the pricing structures of water supplied for irrigation (issues that have endured), and Davidson argues that 'it was obvious that State-operated schemes had no hope of recovering the capital invested in reservoirs and major distributing works.'⁵³ Although, it is also the case that inadequate rates and charges in Victorian (and other states) rural water supply systems have routinely been the result of political intervention.⁵⁴

The advanced stage of the development phase is widely recognised as a period of increasing Commonwealth involvement in water supply construction. It was an era of "nation-building" based on the engineered expansion of irrigation and water supply generally, and included the Snowy Mountains Scheme as its most obvious physical and cultural monument. The social significance of the project was effectively portrayed by Snowy scheme worker Bill Lovelock's popular song, "Snowy River Roll":

Give me a man who's a man among men, who'll stow his white collar and put down his pen. We'll blow down a mountain and build you a dam, bigger and better than old Uncle Sam.⁵⁵

The passage of the *Snowy Mountains Hydro-electric Power Act* (1949) by the Chifley government (through a creative interpretation of the Commonwealth government's exclusive powers for defence) initiated a diversion scheme capable of generating 2,820,000 kilowatts of electricity, and would additionally provide 2,800,000 megalitres of irrigation water to Victoria

⁵³ Davidson, Australia Wet or Dry, 77.

⁵⁴ Powell, Garden State, 196.

⁵⁵ Bill Lovelock, *Snowy River Roll* (words and music), (Sydney, Southern Music Publishing Co., 1958).

and New South Wales.⁵⁶ Its construction signalled the commencement of the "big dams" policy era and the construction of large storages in most Australian States. For its part, the Victorian government (along with New South Wales) invested heavily in the extension of the Hume Dam (1961) and the expansion of the Eildon Dam (1956) – the storage capacity of that reservoir alone increased by nearly 800 per cent.

However, towards the end of the development phase a picture gradually emerged, indicating that the massive costs (economic and environmental) of water supply projects "definitely outweighed" their positive benefits.⁵⁷ Davidson's *Australia Wet or Dry? – The Physical and Economic Limits to the Expansion of Irrigation* (1969) was among the earliest works produced that offered an extremely critical appraisal of the country's history of irrigation development: 'None of Australia's irrigation schemes operates profitably and...the Australian people would have had a higher standard of living if the area of irrigated land had been much smaller.'⁵⁸ Critiques such as Davidson's argued that there was a contrary view of development which demonstrated that 'successful agricultural enterprise was predicated on the utilisation of large tracts of cheap land, the use of low levels of labour and the production of a relatively durable export commodity.'⁵⁹

⁵⁶ Musgrave, *Historical Development of Water in Australia*, 37.

⁵⁷ Smith, Water in Australia, 168-169.

⁵⁸ Davidson, Australia Wet or Dry, v.

⁵⁹ John Tisdall, John Ward and Tony Grudzinski (eds.), *The development of water reform in Australia*, (Canberra, 2000), 18.
The 'reform' phase (1980 – present)

Crase notes that from the early 1980s the "development hypothesis" had been 'supplanted by a management approach more consistent with the notion of a *mature water economy*." [*Emphasis Added*]⁶⁰ The mature water economy is characterised by the rising costs of supply, water scarcity and increased competition for water resources. It has seen significant competition between environmental, economic and social policy objectives as rural water supply governance embraced principles of resource *sustainability*, incorporating economic efficiency (particularly in water allocations and pricing structures), environmental sustainability (including the development of water conservation principles and integrated catchment management) and broader notions of *sustainable development*. To this end, the reform phase is reflective of considerable changes in the legislative and administrative spheres, as well as the increased role of the Commonwealth in interstate water matters (particularly concerning water availability in the Murray-Darling Basin).⁶¹ Moreover, this phase has witnessed the embrace of managerialist, economic rationalist and market-based approaches to water reform which have continued to influence the transformation of rural water supply governance arrangements through to the present day.

Summary

This discussion has introduced the notion that a high variability in water availability (in Victoria and the other Australian States) has operated as a direct influence over the formation of governance arrangements concerning rural water supply. This notion is demonstrated through a discussion of the phases of Australian water resources development "establishment", "development" and "reform". Moreover, the discussion of these phases highlights the presence

⁶⁰ Crase, Australian Water Policy, 2.

⁶¹ Ibid, 3.

of four fundamental rural water supply governance issues which are of specific concern to the following chapters of the thesis: the *allocation of water rights through vesting primary rights to water in the "State"* and their control by statutory authorities; the *apportionment of costs* associated with irrigation between water users and the state; the *allocation of water resources between rural and urban interests* and the presence of a divide between these interests; and, the emergence of *water resources sustainability* as a central point of concern associated with the physical and economic limits of water resources and their conservation. This thesis is primarily concerned with the exploration of these issues and how they have evolved within the broader context of rural water supply governance.

Governance and Institutions

In the pursuit of understanding the development of rural water supply governance in Victoria this thesis also seeks to contextualise its development as a political institution. Institutions are effectively described as formal organisations or bodies although, in a general sense they operate as established laws, customs or relationships that govern behaviour. As an extension of this, political institutions essentially exist as established centres of power and resources that are utilised by political actors throughout political struggles and governance relationships.⁶² In each of these respects rural water supply governance in Victoria can be considered a political institution. This section is focused on an overview that reflects the importance of institutions

⁶² Stephen Bell, 'Institutionalism', in John Summers, Dennis Woodward and Andrew Parkin (eds.),

Government, Politics, Power and Policy in Australia (7th edition), (Frenchs Forest, Sydney, 2002), 364.

to the progression of ideas advanced by this thesis. Further, it aims to present a brief introduction to the study of "new institutionalism" in political and social science.

The study of institutions in political science more recently has re-emerged from a "general trend" that emphasised the connections between society and polity 'as running from the former to the latter rather than the other way round.⁶³ As a result, the consideration of political institutions has moved beyond a conception of static rule-bound organisations of obligatory action, and has embraced a functional notion of political institutions as centrally placed organisations that govern political relationships. This section provides a brief discussion of the study of institutions in political science, the emergence of "new institutionalism" and some of the varied approaches to new-institutional analysis in political science, and is concluded by a brief discussion of their relationship to the central study of the thesis, rural water supply governance.

'Old' institutionalism, the behavioural revolutions and 'new' institutionalism

'In the late 19th and early 20th centuries, political science did the obvious. It commenced by describing and mapping the formal institutions of government and the modern state, both within specific countries and on a comparative basis.'⁶⁴ The central emphasis of this practice described and recorded the boundaries associated with the legal and administrative arrangements of government. In this sense, the focus of this study was not to build a theory of institutional bodies and relationships, but rather to enumerate their formal status and evaluate their ability to measure up against norms of democracy and responsible government. Thus, the

⁶³ Rosa Mule, 'New Institutionalism: Distilling some 'Hard Core' Propositions in the Works of Williamson and March and Olsen', *Politics*, 19, 3, (1999), 145.

⁶⁴ Bell, Institutionalism, 366.

initial study of institutions considered them in a static and prescriptive context and did not attribute value to conceptualising the role of institutions in political relationships. Moreover, 'the "old institutionalism" also tended to have a pronounced historical foundation for its analysis. 'Its analysis was concerned with how (then) contemporary political systems were embedded in their historical development as well as in their socio-economic and cultural present.'⁶⁵

As political science began to concern itself with how relationships could be interpreted against broader social themes, alternative schools emerged which argued that 'the best way of explaining behaviour was not through reading the rule book but through the direct observation of behaviour itself.'⁶⁶ According to the behavioural and rational-choice schools, institutions had little to offer in understanding the complexity of political relationships that were regarded as dependent on the dialogue between various actors within the polity. More recently it has become increasingly pertinent to ask whether institutions *determine action* or if they merely suggest courses of action. These questions have driven the intellectual pursuit of a "new institutionalism" to separate institutions from their traditional static context and locate them centrally in the determination of social outcomes. Peters has indicated the significance of new institutionalism as a field of study:

Perhaps the most important element of an institution is that it is in some way a structural feature of the society and/or polity. That structure may be formal (a legislature, an agency in the public bureaucracy or a legal framework), or it may be informal (a network of interacting organizations, or a set of shared norms). As such, an institution transcends individuals to involve groups of

⁶⁵ Peters, Institutional Theory in Political Science, 10.

⁶⁶ Bell, Institutionalism, 367.

individuals in some sort of patterned interactions that are predictable, based upon specified relationships among the actors.⁶⁷

The study of new institutionalism is also the product of several different "approaches" or schools and this thesis is specifically concerned with the concepts and ideas that have emerged from four of the approaches: the first of these is *normative institutionalism* following the works of March and Olsen with an emphasis placed on the significance of institutional norms to human behaviour; the second approach *rational-choice institutionalism* strongly contrasts with the first and is focused on behaviour as a 'function of rules and incentives;'⁶⁸ the third approach, *sociological institutionalism* is based in the study of institutions drawn from the sociological roots of Weber, Durkheim, Eisenstadt and Parsons; and the fourth approach gives its primary consideration to the influence of choices that occur early in historical development of a policy and is commonly referred to as *historical institutionalism*.

A question of appropriateness – normative institutionalism

The case for the resurgence of focus on institutions in political science is probably best encapsulated by March and Olsen who argue that institutions 'are collections of structures, rules and standard operating procedures that have a partly autonomous role in political life.'⁶⁹ They contended that formal organisations accounted for 'most of the major actors in modern economic and political systems' and to this end, that 'the institutions of law and bureaucracy occupy a dominant role in contemporary life.'⁷⁰ Moreover, they suggest that the dominant view

⁶⁷ Peters, *Institutional Theory in Political Science*, 18.

⁶⁸ Ibid, 19.

⁶⁹ March and Olsen, *Elaborating Institutionalism*, 4.

⁷⁰ James G March and Johan P Olsen, 'The New Institutionalism: Organizational Factors in Political Life', *The American Political Science Review*, Vol 78(3), (1984), 734.

of the institution in post-war political theory was: *Contextual* (it emphasised the connections between politics and society); *Reductionist* (focused on the behaviour of actors and not the influence of organisations); *Utilitarian* (ascribed actions to self-interest); *Functionalist* (viewed history as an efficient means of accessing uniquely appropriate equilibria), and; *Instrumentalist* (defined decisions and resource allocation as central to political life).⁷¹ In answer to these concerns, they posited an emphasis on the structural aspects of institutions as collections of rules, regulations and operating procedures which are central to their overall capacity to function. In essence, they argue this could assist in understanding how institutions manipulate the process of decision making by acting to exclude potential options and limit possible choices. Institutions could be viewed as determining decisions – on the basis of object, circumstance, form, context, and procedure – and place an overriding governing logic on political behaviour. 'New institutionalism observes political behaviour (particularly preferences and meanings) and seeks to explain them on the basis of education, indoctrination and experience.'⁷²

Central to this conception of institutions is that decisions are consistently subject to the imposition of rules in the form of routines, procedures, conventions, roles, strategies, and normative rule interpreting practices such as beliefs, paradigms, codes and cultures.⁷³ Institutional rules are pervasive through their ability to shape the decisions of institutional actors by confining them to a duty-bound obligatory process as opposed to one that is

⁷¹ Ibid, 735.

⁷² Ibid, 739.

⁷³ James G March and Johan P Olsen, *Rediscovering Institutions – The Organizational Basis of Politics*, (New York, 1989), 22.

anticipatory and consequential.⁷⁴ March and Olsen apply this process to institutional action by identifying five contingent elements:

First, we see the logic of appropriateness as a fundamental logic of political action. Actions are fitted to situations by their appropriateness within a conception of identity. Second, we see action – including action in politically important and novel situations – as institutionalized through structures of rules and routines. Third, we see rules as reflecting historical experience in a way that ordinarily makes the rules, but not the experience, accessible to individuals who have not themselves lived through the experience. Thus, the specific experiential justifications for specific rules are likely to be irretrievable. Fourth, although rules bring order, we see sets of rules as potentially rich in conflict, contradiction, and ambiguity, and thus as producing deviation as well as standardization. Fifth, we see the network of rules and rule-bound relations as sustained by trust, a confidence that appropriate behaviour can be expected most of the time. Trust, like the rules it supports, is based on a conception of appropriateness more than the calculation of reciprocity.⁷⁵

Essentially, the application of rules is considered to govern the nature of the decision. Institutional actors identify problems first and foremost through the determination of the contingent elements of a problem that are recognisable. Once a problem is recognised, a suitable response is decided through calling upon previous experience with similar problems and implementing a similar or an identical response framework.

⁷⁴ Ibid, 22-23.

⁷⁵ Ibid, 38.

Rational-choice (and economic) institutionalism

In stark contrast to the normative approach of March and Olsen, rational-choice institutionalists view the polity in the terms of a collective action dilemma which requires strategic interaction in order to produce political outcomes.⁷⁶ This approach is influenced chiefly by the contributions of Riker,⁷⁷ Shepsle and Weingast, and has broadly focused on such issues as the consideration of institutional structure as a co-determinant of the characteristics associated with the equilibrium state/s of collective decision processes,⁷⁸ and the complexity of institutional arrangements that underpin the operation of majority rule legislatures.⁷⁹ The focus on institutions in the rational-choice school has regarded them as 'incentive structures which impact an individual's utility maximising behaviour.⁸⁰ Similarly, Douglass North's revival of institutions in terms of rule provision and enforcement, and its additional emphasis on the role of played by institutional actors who 'employ a characteristic set of behavioural assumptions' including fixed "preferences or tastes", instrumental behaviour to maximise their preferences, and highly strategic behaviour.⁸¹

⁷⁶ Peter Hall and Rosemary Taylor, 'Political Science and the Three New Institutionalisms', *Political Studies*, Vol 44 (1996), 945.

⁷⁷ William Riker, 'Implications from the Disequilibrium of Majority Rule for the Study of Institutions', *The American Political Science Review*, Vol 74(2) (1980) 432-446.

⁷⁸ Kenneth Shepsle, 'Institutional Arrangements and Equilibrium in Multidimensional Voting Models', *American Journal of Political Science*, Vol 23(1) (1979), 27-59.

⁷⁹ Kenneth Shepsle and Barry Weingast, 'Institutionalizing Majority Rule: A Social Choice Theory with Policy Implications', *The American Economic Review*, Vol 72(2) (1982), 367-371.

⁸⁰ Vivien Lowndes, "Varieties of New Institutionalism: A Critical Appraisal," *Public Administration*, Vol 74(2) (1996), 187.

⁸¹ Hall and Taylor, *Three New Institutionalisms*, 944-45.

North's view of formal rules is that they merely direct actors to the appropriate resolution of a problem. In this way, 'technically inefficient institutions persist because they contribute to stability and harmony in interaction and because they are deeply embedded in culture and tradition.⁸² In the face of adaptation of the formal institutional structure "old conventions" act against new formal rules. For North, this is a critical attribute of institutional action as the "informal constraints" are considered to provide a significant buffer between the adaptation of formal rules and the implementation of institutional decisions. Moreover, he regards this interaction between the formal rules and informal constraints as primary evidence of "increasing-returns" within an institutional framework.⁸³ 'Underlying these informal constraints are formal rules, but these are seldom the obvious and immediate source of choice in daily interactions.⁸⁴ Moreover, the focus on increasing-returns in North's study of new institutionalism has additionally provided solid analytical foundations for the study of path dependence in policy analysis.

Sociological institutionalism

Peters considers that new institutionalism in sociological science has the potential to add value to its consideration in political science, although he also acknowledges that it is 'concerned more with the relationships of institutions to their organizational fields, and with elements of discourse,'⁸⁵ and further considers that its literature is far stronger in its consideration of the "process of creating institutions". The focus on institutionalism in earlier sociological research is a strong point of linkage and the "new institutionalism" demonstrates significant connections

⁸² Lowndes, Critical Appraisal, 187.

⁸³ North, Institutions and Economic Performance, 101.

⁸⁴ Ibid, 36.

⁸⁵ Peters, Institutional Theory in Political Science, 107.

with the works of Max Weber, Emile Durkheim, Shmuel Eisenstadt and Talcott Parsons.⁸⁶ Although, Lowndes notes that they differ in the "locus of their attention". 'While the "old" approach studied the way in which individual organizations become "institutionalized", the new approach locates the process of institutionalization in the wider environment.'⁸⁷ Powell and DiMaggio in seeking to differentiate the sociological model from rational choice and economic models, emphasise that while human activity can result in the creation of institutions, 'they are not necessarily the products of conscious design.'⁸⁸

However, the sociological study of institutions has also tended to a far broader understanding of what constitutes an "institution". To this end, 'sociologists find institutions everywhere, from handshakes to marriages to strategic-planning departments.⁸⁹ Zucker's two-part explanation in organizational studies⁹⁰ is likely the closest to offering a precise definition. She suggests that institutions are 'a rule-like, social fact quality of an organized pattern of action' and an 'embedding in formal structures, such as formal aspects of organizations that are not tied to particular actors or situations.⁹¹ As a result of the school's particular emphasis on institutional creation and change, DiMaggio is credited with reviving the study of entrepreneurship, which has centred on the role of institutional entrepreneurs as "agents of change". DiMaggio argues that 'new institutions arise when organized actors with sufficient

⁸⁹ Ibid, 9.

⁸⁶ Ibid, 109-110.

⁸⁷ Lowndes, Critical Appraisal, 184.

⁸⁸ Walter Powell and Paul DiMaggio (eds.), *The New Institutionalism in Organizational Analysis*, (Chicago, 1991), 8.

⁹⁰ Within the sociological discipline of "organizational research" most publications adopt the Americanised spelling of "organization", to remain consistent with the discipline this spelling has been used throughout the thesis whenever the field of organizational research is considered and/or discussed.

⁹¹ Lynne Zucker, 'Institutional Theories of Organization', Annual Review of Sociology, Vol 13(1) (1987), 444.

resources see in them an opportunity to realize interests that they value highly.⁹² As a result of these insights, the more recent study of institutional entrepreneurship as a concept has attracted considerable interest in the field of organizational research.⁹³

Historical institutionalism

The fourth approach "historical institutionalism" is particularly relevant to this thesis as its leading advocates have tended towards a focus on path dependence that has emphasised both its causes and consequences. Historical institutionalism is foremost concerned with "empirical questions", "historical orientation" and 'attention to the ways in which institutions structure and shape political behaviour and outcomes.⁹⁴ The study of historical institutionalism is largely centred on the works of Hall, Thelen and Steinmo, Skocpol and Pierson.⁹⁵ Initially developed as a response to political 'group theory' and the concept of structural functionalism, historical institutionalism combines elements of both while also extending upon them. 'From group theory, historical institutionalists accepted the contention that conflict among rival groups for scarce resources lies at the heart of politics, but they sought better explanations for the distinctiveness of national political outcomes and for the inequalities that mark these outcomes. They found such explanations in the way the institutional organization of the polity

⁹² Paul DiMaggio, 'Interest and Agency in Institutional Theory', in Lynne Zucker, *Institutional Patterns and Organizations: Culture and Environment*, (Cambridge, 1988), 14.

⁹³ Ibid. See also: Seth Abrutyn and Justin Van Ness, 'The Role of Agency in Sociocultural Evolution: Institutional Entrepreneurship as a Force of Structural and Cultural Change', *Thesis Eleven*, Vol 127(1), 52-77; and: Raghu Garud, Cynthia Hardy and Steve Maguire, 'Institutional Entrepreneurship as Embedded Agency: An Introduction to the Special Issue', *Organization Studies*, Vol 28(7) (2007), 957-969.

⁹⁴ Sven Steinmo, 'What is Historical Institutionalism?', in Donatella Della Porta and Michael Keating, *Approaches and Methodologies in the Social Sciences: a pluralist perspective*, (New York, 2008), 150.

⁹⁵ See: Hall, *Governing the Economy*; Sven Steinmo, Kathleen Thelen and Frank Longstreth (eds.), *Structuring Politics - Historical institutionalism in comparative analysis*, (Cambridge, 1992); Theda Skocpol, *Protecting Soldiers and Mothers – The Political Origins of Social Policy in the United States*, (Cambridge, Massachusetts, 1992); Paul Pierson, *Politics in Time: History, Institutions, and Social Analysis*, (Princeton, 2004).

and economy structures conflict so as to privilege some interests while demobilizing others.⁹⁶ Peters has noted that the core premise of historical institutionalism is 'the basic, and deceptively simple idea...that the policy choices made *when an institution is being formed, or when a policy is initiated, will have a continuing and largely determinate influence over the policy far into the future.*' [*Emphasis Added*]⁹⁷

What distinguishes historical institutionalism from other approaches is that it is primarily focused on questions that concern individual actors, the context of institutional action, and the pervasiveness of rules. It is centrally concerned with the decision, how it was made and what outcome it produced. In this sense, the imposition of formal rules are just as important as their habitual interpretation and implementation, and each is considered in temporal context. The specific value of historical institutionalism to the study of political science can be found (as Hall and Taylor suggest) in its four principal attributes:

First, historical institutionalists tend to contextualize the relationship between institutions and individual behaviour in relatively broad terms. Second, they emphasize the asymmetries of power associated with the operation and development of institutions. Third, they tend to have a view of institutional development that emphasizes path dependence and unintended consequences. Fourth, they are especially concerned to integrate institutional analysis with the contribution that other kinds of factors, such as ideas can make to political outcomes.⁹⁸

Thelen and Steinmo also note that while historical institutionalism emphasises patterned relations at its core, it also contextualises the role of institutional actors, their interests and

⁹⁶ Hall and Taylor, *Three New Institutionalisms*, 937.

⁹⁷ Peters, *Institutional Theory in Political Science*, 71.

⁹⁸ Hall and Taylor, Three New Institutionalisms, 938.

strategies, and the influence of power distribution among actors. Moreover, they highlight that placing each of these variables in context demonstrates 'how they relate to one another by drawing attention to the way political situations are structured.⁹⁹ To this end, the historical institutional approach is significantly differentiated from that of the rational choice school.¹⁰⁰ Hay and Wincott support this position and further note that a more natural affinity can be found between historical institutionalism and sociological institutionalism, which they consider to span 'a far greater variety of social ontologies than the more ontologically restrictive rational choice theory.'¹⁰¹ This allows historical institutionalist analysis to reach beyond analysing the structure and pattern of actor behaviours, to the analysis of relationships between actor behaviours and the formation of the institutional structures that have encouraged them, and interpret how these behaviours are further shaped by continued institutional development.

As Thelen and Steinmo suggest:

The institutions that are at the centre of historical institutional analyses – from party systems to the structure of economic interests such as business associations – can shape and constrain political strategies in important ways, *but they are themselves also the outcome (conscious or unintended) of deliberate political strategies, of political conflict, and of choice*.¹⁰²

This statement is indicative of the emphasis that historical institutionalism places on selfreinforcing policy trajectories and its related focus on path dependence in the development of

⁹⁹ Kathleen Thelen and Sven Steinmo, 'Historical Institutionalism in comparative politics', in Steinmo, Thelen and Longstreth, *Structuring Politics: Historical institutionalism in comparative analysis*, (Cambridge, 1992), 13.

¹⁰⁰ Ibid, 7.

¹⁰¹ Colin Hay and Daniel Wincott, 'Structure, Agency and Historical Institutionalism', *Political Studies*, Vol 6(5) (1998), 954.

¹⁰² Thelen and Steinmo, *Historical institutionalism in comparative politics*, 10.

political institutions. Historical institutionalist analysis essentially utilises path dependence as an "empirical category" or "organising concept" which fixates centrally on the importance of temporally located decisions and their function in limiting actor preferences.¹⁰³ Importantly, path dependence does not imply the impossibility of change but how initial selections generate a set of objectives that lead to self-reinforcing processes of policy development. As a result, path dependence is considered to hold 'potential utility in the field of policy studies in terms of explaining not only why policies might be difficult to reform but also why they may be more complex over time.¹⁰⁴

Moreover, the concept of path dependence centres on the formation of institutions and the probability that initial decisions taken in the earliest stages of institutional development will likely result in self-reinforcing policy trajectories. Pierson describes the phenomenon in the following terms:

[•]Major institutional arrangements have major social consequences. Individuals make important commitments in response to these institutions. These commitments, in turn, may vastly increase the disruption caused by institutional reforms, effectively "locking in" previous decisions.¹⁰⁵

Path dependent policy outcomes are also viewed as a significant consequence of one of the key ideas advanced by this thesis, that institutional designers intentionally create robust institutions that are difficult to change in order to curtail the ability of their political successors to alter the institutional structures. In this regard, institutional rules are found to be purposely difficult to

¹⁰³ Adrian Kay, 'A Critique of the use of Path Dependency in Policy Studies', *Public Administration*, Vol 83(3) (2005), 554.

¹⁰⁴ Ibid, 554-555.

¹⁰⁵ Paul Pierson, 'The Limits of Design: Explaining Institutional Origins and Change', *Governance: An International Journal of Policy and Administration*, Vol 13(4) (2000), 492.

reverse¹⁰⁶ and are organised in ways which limit the capability of institutional designers and their successors from easily pursuing institutional reforms. As Moe suggests, 'in many cases...they purposely create structures that even they cannot control.'¹⁰⁷

As a reflection of the idea that the design of institutional structures constrains later actors, this thesis places focus on the evolution of the institutional structures of rural water supply from their initial design through to their "reform". In this way, the overall trajectory of "institutional development" provides context as to how particular policy preferences have emerged. Thelen indicates the importance of conducting such an analysis in the following terms:

In order to understand the likely future of the institutions that make up the different "varieties of capitalism" we need a better sense of where these institutions came from, what has sustained them, and what are the ways in which they have changed over time...understanding how they evolved in the past can yield new insights into the modes and mechanisms of change through which they continue to develop today.¹⁰⁸

New institutionalism, historical institutionalism and rural water supply governance

With respect to the central focus of this thesis – the development of rural water supply governance in Victoria – the broad study of institutions offers a number of key ideas and concepts that assist in contextualising individual policy decisions as well as the general developmental path that rural water supply governance in Victoria has taken. However, the following ideas and concepts drawn from the historical institutionalist approach can be

¹⁰⁶ Ibid, 491.

¹⁰⁷ Terry Moe, 'The Politics of Structural Choice: Toward a Theory of Public Bureaucracy', in O E Williamson (ed.), *Organization Theory: From Chester Barnard to the Present and Beyond*, (Oxford, 1990), 125.

¹⁰⁸ Kathleen Thelen, *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*, (Cambridge, 2004), 4.

considered particularly influential to the ideas advanced throughout this thesis: temporal and self-reinforcing processes of development including path dependence, the development of preferences in institutional actors and the connectivity of policy to fundamental ideals, beliefs, norms and traditions that are intrinsic to rural water supply governance. In addition, this thesis places particular focus on the cultural influence of the institution as a "collective" on the behaviour of institutional actors; and, the role of individual actors and entrepreneurship in institutional development.

At the centre of the institutional aspects of this thesis are broad notions of institutional *stability and change*. The notion of stability is an important feature of institutional study and as Peters' notes, all forms of new institutional analysis 'require some degree of stability.'¹⁰⁹ Similarly, adaptation and change are important to the understanding of institutions, however, it is also an important aspect of institutions that effectiveness of action is realised due to the longevity of stable institutional features that provide significant barriers to the possibility of change. In this regard, the foremost concern is how and when political institutions confront the challenge of change.¹¹⁰ North and Krasner elucidate two competing approaches to confronting change, and both approaches are briefly considered here.

For North, change can occur "incrementally" within an institutional framework by a process of "marginal adjustment" as long as the institution controls the extent of the change. North further considers that this is a necessary function in order to maintain overall institutional stability, as stability in and of itself, 'is certainly not a sufficient condition for efficiency.'¹¹¹ This

¹⁰⁹ Peters, Institutional Theory in Political Science, 19.

¹¹⁰ Elim Papadakis, Environmental Politics and Institutional Change, (Melbourne, 1996), 3.

¹¹¹ North, Institutions and Economic Performance, 83-84.

understanding of change within an institutional structure can be applied to much of the behaviour that is observed in political institutions, and it does provide an effective explanation of how that behaviour is guided by the institutional structure. However, while not discounting the possibility of externally initiated institutional change, this understanding assumes that most change will occur within the institution itself.¹¹² The reasoning for this focus on the prevalence of incremental change within institutions is based on a contextual understanding of "institutional equilibrium" which makes the assumption that in the presence of the complex of rules and contracts that institutional actors' work within, none will see it as advantageous to consider restructure.

In contrast, Krasner's approach emphasises that change is regarded as the exception to the rule in political institutions that most consistently exhibit stasis. The primary reason for this is related to the key differences between why the institution exists and how the institution operates. 'The causal dynamics associated with a crisis of the old order and the creation of a new one are different from those involved in the perpetuation of established state institutions.'¹¹³ In Krasner's view, political institutions typically emerge in response to a perceived external crisis and then quickly come to dominate their environment. Institutions also tend to self-reinforce practices and procedures critical to their operation and the pursuit of overall institutional stability sees that these attributes are maintained, and the institution continues to behave in ways that resist change.

¹¹² Charles Lindblom, 'The Science of 'Muddling Through'', *Public Administration Review*, Vol 19 (2) (1959), 80-84. In particular Lindblom highlighted the difficulties associated with decision making as marginal adjustment where the question of policy appropriateness is confused through the use of *Successive Limited Comparisons* (the *branch* model).

¹¹³ Stephen Krasner, 'Approaches to the State: Alternative Conceptions and Historical Dynamics', *Comparative Politics*, Vol 16(2) (1984), 240.

At this point, effective change requires a form of critical juncture capable of generating a new perception of crisis to force the institution to adapt. Krasner rejects that institutions change as part of an incremental process and argues that political institutions are more readily subjected to 'short bursts of rapid institutional change' which are followed by long periods of "stasis".¹¹⁴ Central to this process of "punctuated equilibrium" is that change occurs rarely in environments where structure is the primary and constraining force and change is regarded as a "difficult" phenomenon. For the purposes of this thesis, Krasner's approach to this problem is preferred. Although it is acknowledged that the approach advanced by North can assist in explaining smaller processes of adjustment and amendment within political institutions where the institution and its actors recognise a pressure or need to adjust their behaviours.

Summary

Institutions are pervasive throughout all aspects of political life including in the development of governance arrangements and political relationships. Whilst older conceptions of political institutions were essentially static and rigid, the rise of "new institutionalism" has sought to place institutions at the centre of political behaviour. The above section has outlined the significance of this resurgence of institutional study in political and social science. Furthermore, this has assisted in building a conception of rural water supply governance as a political institution, and how the question of its development as an institution also includes related questions specific to the institutional properties which have influenced its development. In this respect, new institutionalism has revealed a number of alternative approaches which include key ideas and concepts that can assist in understanding rural water supply governance in Victoria and how it has developed.

¹¹⁴ Ibid, 242.

Liberalism, Agrarianism, Land Reform, and Colonial Politics in Victoria

This concluding section of this chapter intends to establish the historical background against which the politics that gave rise to the early stages of Victorian rural water supply governance can be understood. This background assists in establishing the historical context preceding the subsequent era of legislative developments in rural water supply, and it also presents an important introduction to the political ideas, debates and conflicts that characterise the legislative action over rural water resources. The most significant aspect of the period that foreshadowed the foundations of rural water supply governance was that it witnessed an unprecedented convergence of social, political and climatic pressures. The fundamental contest over differing conceptions of "Liberalism" in the parliament and the advance of land reform legislation shaped the politics of the colonial era. Moreover, the combined influences of political and land reform in Victoria during the 1860s played a determinative role in generating the conditions that enabled water supply to become a significant political issue. Over the following two decades 'the trial and error process of pioneer settlement answered some of the major questions about regional resource endowments, and posed a few more.¹¹⁵ Essentially. by the late 1870s key aspects of Victorian political and social development had collided with the colony's unpredictable climate and resulted in significant pressures for colonial governance.

Liberalism and 'land reform' in Victoria

In the earliest years of Victorian settlement the landscape and watercourses were dominated by the rapid expansion in pastoral occupation. Crawford suggests that the spontaneity of the expansion and the defiance of pastoralists against the "official policy" of the Crown could only

¹¹⁵ Powell, Garden State, 62.

be defined as a form of necessary trespass. 'They were trespassers, but their trespass simply had to be allowed.¹¹⁶ In Victoria the expansion was so significant that within five or six years of its commencement, nearly all the districts favoured by a sufficient natural water supply were occupied. According to Roberts, 'Victoria's early pastoral surge had occupied much of its geographical landscape and this resulted in a concentrated group of 'squatters' with social, economic and political influence.¹¹⁷ The 'gold rush' era was an equally significant influence over the colony's early development with the most pronounced and lasting impact being the significant population increases. 'In Victoria, where the maximum impact of goldmining was felt, the total soared from 77,000 in 1851 to 460,000 in 1857 and 540,000 at the end of the decade.¹¹⁸ This was reflected by the considerable numbers (approximately 150,000) actively working on the goldfields themselves.¹¹⁹ This rise in population is the central factor in the progression of urban and rural settlement and its impact on the Victorian landscape, its politics and people was substantial. Massive growth across the pastoral occupation and gold rush eras inevitably resulted in significant cleavages linked to the accessibility of lands. The political implications of the emerging social divisions were profound and became the foundation of a broader political debate concerned with differing conceptions of "liberal" governance in the colonies.

"Liberalism" in the latter half of the nineteenth century was a contested domain that held farreaching implications for the trajectory of Australian politics.¹²⁰ Economic liberalism in the

¹¹⁶ R M Crawford, Australia, 3rd Edition, (Melbourne, 1970), 73.

¹¹⁷ Stephen H Roberts, *History of Australian land settlement 1788-1920*, (Melbourne, 1968), 227-231.

¹¹⁸ Powell, Garden State, 52.

¹¹⁹ Henry Gyles Turner, A History of the Colony of Victoria – Vol. II. A.D. 1854-1900, (Melbourne, 1973), 21.

¹²⁰ Tim Rowse, *Australian Liberalism and National Character*, (Malmsbury, Victoria, 1978); John R Nethercote (ed), *Liberalism and the Australian Federation*, (Annandale, 2001), chapters 3 & 4; Judith Brett, *Australian*

established traditions of Smith, Ricardo and Mill emphasised free trade and labelled it "inefficient, improper and unjust" for the state to interfere with the market.¹²¹ However, the extent to which *laissez-faire* capitalism impacted upon the industrial poor was held by many as a compelling reason to utilise methods of state intervention in order to advance the political, civil and social rights of the underprivileged.¹²² In Australia, this contest of ideas was characteristically linked to central aspects of economic and social development that had been integral to expansion in the Australian colonies. Through the illegal occupancy of lands and the gaining of temporary leases from the British government the pastoral "squattocracy" had come to exert considerable power and influence in the colonies.¹²³ Early colonial political rights were the domain of these propertied settlers and they continued to legitimise their position, rallying against government intervention in the market. Only when populations swelled with the gold rushes did a rival political force develop that could challenge the landed gentry. 'Benthamite philosophic radicals' and newly arrived Chartists pursued 'the democratic agenda of representation of the people, not of property.'¹²⁴

The battle that ensued (particularly in New South Wales and Victoria) was one marked with a strong sense of class hostility, with the power of pastoral interests entrenched in the colonial upper houses, and that of the liberals centred on lower houses elected on the basis of male

Liberals and the Moral Middle Class: from Alfred Deakin to John Howard, (Port Melbourne, 2003), chapters 1 & 2.

¹²¹ Stuart Macintyre, A Colonial Liberalism: The Lost World of Three Victorian Visionaries, (South Melbourne, 1991), 92.

¹²² Dean Jaensch and Max Teichmann, *The Macmillan Dictionary of Australian Politics*, (South Melbourne, 1979), "Liberalism", 179.

¹²³ Stuart Macintyre, A Concise History of Australia, 3rd Edition, (Melbourne, 2009), 75.

¹²⁴ Marian Sawer, *The Ethical State? Social Liberalism in Australia*, (Melbourne, 2003), 34.

suffrage.¹²⁵ The "colonial liberals" sought to break the land monopoly that had previously developed and pushed for land reform resulting in various land selection acts passed in most colonies from 1860 onwards.¹²⁶ The fervently held view of the colonial liberals was that economic, political and social equality could only be obtained through hard won political rights and the pursuit of land reform. These ideals were combined with a strong sense of the social benefits to be obtained through breaking large pastoral estates into smaller holdings. 'The land reformers envisaged a society of self-sufficient producers that would channel the energies of the people into productive contentment.'¹²⁷ In many respects this early expression of liberalism in Australia heavily imbued with objectives that emphasised equality and social justice paved the way for social liberals who held a more progressive view embracing wider notions of an "ethical state" pursuing societal goals through active intervention. Gradually, the Australian social/political environment became inclined towards policies of state intervention to achieve social objectives offering citizens the opportunity to develop their potential. ¹²⁸

Social liberalism and 'Jeffersonian' agrarianism

Sawer notes that Social Liberalism has an established heritage in T H Green's idea of positive liberty emphasising the interdependence between the development of community and the development of human potential. 'Individuals only developed their full potential in relationship with the community, and required the means, education and access to culture to participate fully in community life.'¹²⁹ Social liberals considered "liberty" in far stronger terms than the

¹²⁵ Crawford, *Australia*, 114.

¹²⁶ Macintyre, Concise History of Australia, 98.

¹²⁷ Ibid.

¹²⁸ Marian Sawer, 'The ethical state: Social liberalism and the critique of contract,' *Australian Historical Studies*, Vol 31 – Iss 114 (2000), 73-74; also: Sawer, *The Ethical State*, chapters 1-2.

¹²⁹ Sawer, Critique of contract, 69.

freedom of individuals to pursue self-interest under the protective veil of limited government. They offered an ethically grounded conception of liberty that emphasised the positive role of citizens placing the common good ahead of self-interest.¹³⁰ Central to this idea was that politically engaged "active citizens" utilised the power of the state to intervene in the market in order to alleviate social inequality and extend the means of self-realisation to all citizens.¹³¹ In this regard a focus on "equality of opportunity" would enable the moral state to introduce policies that were measured on the basis of civic virtue. State education, the protection of native industry and the maintenance of a living wage among many other examples were considered vital aspects of encouraging an active citizenry.

In a similar fashion promoting an agrarian life free from the constraints imposed by newly industrialised cities was an ideal that sustained continued support among the colonial liberals. As Macintyre suggests this desire for settlers to obtain small agricultural holdings was driven in part by American goldfields settlers 'seized with the doctrines of Jeffersonian Democracy.'¹³² A century earlier, some of Thomas Jefferson's earliest acts as a legislator in Virginia were brought forward in the interests of frontier farmers. 'To champion the people, therefore, was to champion agriculture, a political theorem no politician could deny, however lofty or disinterested his purposes.'¹³³ This view of agriculture did not see primary value in the land as a source of wealth but as a sociological foundation for 'human virtues and traits most congenial to popular self-government.'¹³⁴ For agrarians that followed the Jeffersonian

¹³⁴ Ibid, 667.

¹³⁰ Sawer, The Ethical State, 34.

¹³¹ Ibid, 34-41.

¹³² Macintyre, Concise History of Australia, 97.

¹³³ A Whitney Griswold, 'The Agrarian Democracy of Thomas Jefferson,' *The American Political Science Review*, Vol 40(4) (1946), 661-663.

philosophy the sociological value was clear: 'Those who labour in the earth are the chosen people of God...While we have land to labour then, let us never wish to see our citizens occupied at a work-bench, or twirling a distaff.'¹³⁵

In the Jeffersonian tradition, agrarianism favours an integral society where "making a living" and "a way of life" are treated synonymously.¹³⁶ From a democratic perspective the ideal of an integral society is connected to Jefferson's own desire to see 'a community of small farmers, freemen unencumbered either by feudal obligations to a distant sovereign or by archaic practices of primogeniture or entail among themselves.'¹³⁷ For Victorian colonial liberals objections to the dominance of the squattocracy were cast along similar lines, although their expression of agrarian ideals was one component of a wider range of beliefs. Promoting the wholesome and virtuous aspects of a life lived on the land emphasised a conception of freedom which reflected the broader objectives of the liberal movement. Liberalism of the nineteenth century was not simply an ideology espoused by a political party, rather as Winsome Roberts suggests: 'liberalism was enshrined as a way of life.'¹³⁸ Colonial liberalism was the conduit that enabled the expression of democratic, republican and communitarian characteristics highlighting the diversity of interests that comprised its base (for example: manufacturers, artisans, labourers and agriculturalists).¹³⁹

¹³⁵ Noble E Cunningham, In Pursuit of Reason – The Life of Thomas Jefferson, (London, 1987), 79.

¹³⁶ Patrick F Quinn, 'Agrarianism and the Jeffersonian Philosophy,' *The Review of Politics*, Vol 2(1) (1940), 92.

¹³⁷ Griswold, Agrarian Democracy of Thomas Jefferson, 660.

¹³⁸ Winsome Roberts, 'Liberalism: The Nineteenth Century Legacy – A perspective from the grass-roots,' in John R Nethercote (ed), *Liberalism and the Australian Federation*, (Annandale, NSW, 2001), 45.

¹³⁹ Ibid, 43-47.

Land selection in Victoria and the years of flood and drought

The progression of land development in Victoria through land "selection" was reflection of the early difficulties associated with the formation of legislation. The Victorian "Land" Acts of 1860 and 1862 and the *Amending Land Act* (1865) concentrated the procurement of land initially as leases and later as fee simples 'through paying a purchase price in instalments and by fulfilling certain conditions of occupancy and improvement.'¹⁴⁰ However, in operation these measures were still found to favour pastoral occupation through the exercise of submitting false or 'dummy' applications. As a result, the most desirable lands continued to be monopolised by the existing propertied settlers.¹⁴¹ Regulations adopted in council in 1868 set about correcting the defects through the introduction of 'free selection' provisions,¹⁴² and in 1869 another "Land Act" formalised the free selection criteria and effectively stopped the activity of "dummying".

The more prominent reason why the free selection period in Victoria ultimately succeeded is rainfall. Unusual levels of above-average rainfall frequented the colony between 1869 and 1875 and caused substantial flooding on the plains 'saturating the subsoil to an extent unknown for many previous years.'¹⁴³ The impact of these events was particularly evident in the Central-North, Mallee and Wimmera districts of the colony where the continued heavy rainfall brought about a significant period of agricultural expansion.¹⁴⁴ The driest districts in the northern and north-western parts of Victoria were previously 'only sparsely populated by a few hardy

¹⁴⁰ Crawford, Australia, 115.

¹⁴¹ Roberts, Australian land settlement, 252.

¹⁴² 'Free selection', Argus (Melbourne), September 2 1868, 6.

¹⁴³ Victoria Parliament, Stuart Murray, *Royal Commission on Water Supply – Further (Third) Progress Report*, Parliamentary Paper (no.53), (Melbourne, Government Printer, 1885), xix.

¹⁴⁴ Robyn Ballinger, 'Landscapes of Abundance and Scarcity on the Northern Plains of Victoria', *Provenance: The Journal of Public Record Office Victoria*, Vol 7 (2008), Retrieved: <u>www.prov.vic.gov.au/provenance/no7/</u> LandscapesPrint.asp, (August 10 2011).

"squatters" and pastoral tenants, but the continued good seasons enticed a large flow of agricultural settlers into these areas."¹⁴⁵ The dominant feeling was that favourable conditions in combination with the security of the land Acts provided an opportunity to those who had failed to make their fortunes on the goldfields.

However, an aggressive drought in 1877-81 crippled both agricultural and pastoral settlers, and includes the specific experience of ferocious extremes on the "northern plains". Clark and Renard indicate that 'no action had been taken to anticipate the water-needs of these settlers in the preceding ten years...but there was much public controversy and the issue of irrigation came before the community for the first time.'¹⁴⁶ The crisis also occurred in the midst of continuing political instabilities over land and democratic reform in the Victorian parliament.¹⁴⁷ As Strangio notes, the political tone of the period was "incendiary"¹⁴⁸ and the added pressure of "water famines"¹⁴⁹ on the northern plains only added to established political instabilities.

Summary

Victoria's era of land reform that immediately preceded the formation of rural water supply legislation was characterised by intense political conflicts between the pastoral interests and the later "settlers" (many of whom arrived during Victoria's "gold rushes"). The process of

148 Ibid.

¹⁴⁵ Clark and Renard, *The law of allocation of water*, 163.

¹⁴⁶ Ibid, 164.

¹⁴⁷ Paul Strangio, 'Broken heads and flaming houses: Graham Berry, the wild colonial', in Paul Strangio and Brian Costar (eds.), *The Victorian Premiers 1856 – 2006*, (Annandale, 2006), 52.

¹⁴⁹ 'The water famine', *Age* (Melbourne), February 18 1882, 6; 'The water famine', *Argus* (Melbourne), February 23 1882, 4.

land settlement that followed and convergence of social, political and climatic pressures that resulted were major influences on the political progression towards formulating water supply legislation that would specifically provide for Victoria's regions. This historical context presents an important introduction to the political ideas, debates and conflicts that later characterise legislative action in terms of rural water resources.

Conclusion

The central focus of this thesis is the development of rural water supply governance in Victoria, and the core purpose of this chapter has been to introduce the principal ideas, concepts and themes that are advanced in order to support this objective of the thesis. This chapter initially focused on the climatic reality that water in Victoria (and Australia) is a resource of limited availability and high variability, and that this holds significant implications for the governance of its supply. This reality is reflected across the Australian continent and is broadly demonstrated in the related focus on the three "phases" of Australian water resources development: "establishment", "developmental" and "reform". The consideration of these phases of development also highlighted the four fundamental rural water supply governance issues that are central to the remaining chapters of this thesis: the allocation of water rights through the vesting of primary water rights in the state; the apportionment of the costs of rural water between water users and the state; the apportionment of water resources between urban and rural water users and the presence of a divide; and, the emergence of water resources sustainability issues associated with the physical and economic limits of water resources expansion. This chapter has also advanced the premise that rural water supply governance is a political institution, and therefore, the question of its development includes questions that consider the institutional properties that have influenced its development. Moreover, this includes placing a specific focus on the combined notions of institutional stability and change which are significant aspects of discussion throughout the thesis. In this regard, part two briefly presented the rise of "new institutionalism" in political science and considered four approaches to new institutionalist thought that assist in the development of ideas about rural water supply governance.

Finally, the chapter has introduced the background of liberalism, agrarianism and land reform in Victorian colonial history, which was influential over the initial stages of the development of rural water supply governance in Victoria. This period of colonial politics in Victoria witnessed a convergence of social, political and climatic pressures that forced rural water supply on to the stage as a significant political issue. The consideration of this period of colonial political history advanced the context from which the beginnings of rural water supply governance in Victoria emerge.

Chapter Two: The Beginnings of Rural Water Supply Governance

This chapter foremost examines the massive contribution to the body of Victorian water legislation by Alfred Deakin. It also marks the commencement of the establishment phase, which focuses on the formation of new institutional structures that attempt to constrain future actors. The chapter first considers how Deakin's water policy emphasised notions of social liberalism and placed long-term national economic development at its centre. Moreover, it studies his extensive research and efforts towards the establishment of a sound legislative platform for *irrigated development* in Victoria, and how this spurred the formation of new institutional forms associated with rural water supply. It initially examines Deakin's early philosophical influences and particularly the close relationship with his mentor David Syme and how these influences come to shape Deakin's distinct views on water policy, culminating in the passage of his *Water Conservation Act*. Specific focus is also applied to Deakin's *Royal Commission on Water Supply* (1884-1886) which resulted in his report into *Irrigation in Western America* and the realisation of the *Irrigation Act* in 1886, two significant contributions to water law in Australia.

The significance of Deakin's role as a political actor engaged in the development of new institutional forms pertaining to the governance of rural water supply is considered, with a focus on whether he may be more appropriately considered as an *institutional entrepreneur*. In recent years the evaluation of the activities of actors within institutional frameworks has seen a considerable focus shift to their potential role as institutional entrepreneurs. In this regard entrepreneurs are contextualised as "firmly committed" to projects that can be considered a "defining feature" of their ethos, highly focused on "reconfiguring symbolic and organisational space", and their projects represent "concerted efforts" to 'articulate and legitimate their

proposals for structural change...while simultaneously challenging and critiquing existing arrangements.¹⁵⁰ This chapter applies such an analysis to Deakin's leadership regarding rural water supply governance institutions by focusing on three fundamental attributes demonstrated through his ministerial activities: *agency*, as an actor with an ability to pursue interest and conducting divergent change; *social skill*, through navigating significant social networks and engaging in skilled social action, and; as an *interest-driven actor* who operates strategically in the pursuit of collective goals.

The chapter concludes with a focus on the role of colonial premier Duncan Gillies in introducing the legislation that secured the governance of Melbourne's water supply within the *Melbourne and Metropolitan Board of Works*, and the effective separation of water supply in Victoria into rural and urban spheres of governance.

¹⁵⁰ Abrutyn and Van Ness, *The Role of Agency in Sociocultural Evolution*, 55; Paul Colomy, 'Neofunctionalism and Neoinstitutionalism: Human Agency and Interest in Institutional Change', *Sociological Forum*, Vol 13(2) (1998), 272.

	1877	
	1878	
	1879	Deakin elected to Parliament and resigns
Gordon and Black - Water Conservancy Board	1880	Deakin re-elected to Parliament
	1881	Water Conservation Act (1881)
	1882	
"Grand Coalition" - Service and Berry	1883	Water Conservation Act (1883)
Royal Commission on Water Supply (1884-1887)	1884	Deakin Tour - United States
	1885	Report on Irrigation in Western America (Deakin)
Opening of British money markets to Australian colonies "Grand Coalition" - Gillies and Deakin	1886	Irrigation Act (1886)
Construction of Goulburn Weir commences	1887	Deakin Tour - Imperial Conference Report on Irrigation in Egypt and Italy
	1888	
Royal Commission into the Sanitary Condition of Melbourne (1889-1890)	1889	
Melbourne and Metropolitan Board of Works Act (1890) Deakin Tour - India	1890	Water Act (1890) - Consolidating Act 1890s depression
Completion of Goulburn Weir	1891	Melbourne Metropolitan Board of Works Established
	1892	
	1893	Select Committee Investigation (Mildura Settlement)
Royal Commission on Water Supply (1894-1896) (Economic Losses)	1894	
	1895	
Mildura Royal Commission Formation of "First Mildura Irrigation Trust"	1896	

Figure 2.1: Chapter 2 Timeline

Colonial Water Politics and Alfred Deakin 'Irrigationist'

Much of the story concerning the development of rural water supply legislation in colonial Victoria overlaps with the story of Australia's second Prime Minister Alfred Deakin, as he commenced his political career in the Victorian parliament. Deakin's views on water policy reflect distinct social liberal and agrarian influences, and the influence of popular ideas concerning the role of the state in national economic development. Such ideas particularly echo

Deakin's close relationship with mentor David Syme. However, Deakin's passion for enabling a water supply to the northern plains is also the product of his involvement with influential irrigationists such as Hugh McColl, who assisted Deakin in developing strong beliefs in irrigation as public policy. The Victorian parliament's earliest attempts at legislating for rural water supply reflect two main aims: the provision of water to maintain settlement in the northern regions of the colony; and, ensuring the legal certainty of the legislative provisions by attempting to overcome the imported common law doctrine of "riparian rights". In particular, the *Water Conservation Act* (1881) marked the earliest attempt by the parliament to resolve these issues. As Minister for Water Supply, Deakin built on the foundations of the 1881 legislation and drafted an amending *Water Conservation Act* (1883) which was the first legislation in Victoria 'with relation to the conservation and distribution of water *not only as a means of preserving life, both animal and human, but also as a means of increasing the yield of the soil, giving some security to agriculturalists in districts where rainfall is precarious.'[Emphasis Added]¹⁵¹*

Deakin, Syme, and "national political economy"

Deakin, in his own words, was "whirled into politics" when a deputation of the Bacchus Marsh Reform and Protection League came to Melbourne in search of a candidate for the division of West Bourke, arriving at Deakin's door on the advice of David Syme.¹⁵² The electorate contained varying proportions of agriculturalists, miners, fossickers, artisans and labouring men and stood out as a true microcosm of the political diversity that characterised the liberal

¹⁵¹ Alfred Deakin, Victorian Parliamentary Debates ('VPD'), Legislative Assembly, October 10 1883, 1388.

¹⁵² J A La Nauze, *Alfred Deakin: A Biography*, (Carlton, 1965), 40; William Williams, *A History of Bacchus Marsh and its Pioneers*, *1836-1936*, (Bacchus Marsh, 1936), 24. David Syme and his relationship with Deakin are discussed at length below.

movement.¹⁵³ Deakin won the seat and used his maiden speech to the parliament (an address in reply to the Governor's opening of parliament) to announce his resignation. It had been discovered that four electors had been potentially disenfranchised at a single polling booth when the returning officer ran out of ballots (Deakin's final margin was 97 votes). Not wishing to see the ministry tainted by his membership Deakin resigned.¹⁵⁴ He recontested the seat another three times before being re-elected in July 1880, re-entering a parliament bitterly divided on the issue of upper house reform. Deakin took it upon himself to broker "an honourable union of the parties" and maintained a stance contrary to that of his own party.¹⁵⁵ These actions were ultimately decisive and largely responsible for progressing colonial governance in Victoria,¹⁵⁶ and for Deakin, were undoubtedly indicative of a personal conception of what it meant to be a liberal. Alfred Deakin (1856 - 1919) was born in the Melbourne suburb of Fitzroy and commenced his education initially with his sister in Kyneton, and then South Yarra, before enrolling in the Melbourne Church of England Grammar School.¹⁵⁷ After his Matriculation Deakin studied law at the University of Melbourne and was admitted to the Victorian Bar in 1877. The following year, Deakin's propitious meeting with David Syme saw him begin a journalistic career contributing regular political and literary articles for 'The Age' newspaper. Through this initial connection the two men cultivated what may be described as a remarkable professional and personal relationship, with Deakin's arrival as a colonial politician largely a product of this relationship with his employer and mentor.

¹⁵³ Alfred Deakin, [J A La Nauze and R M Crawford (eds.)], *The crisis in Victorian Politics 1879-1881: A Personal Retrospect*, (Melbourne, 1957), 8.

¹⁵⁴ J A Alexander *The Life of George Chaffey: A Story of Irrigation Beginnings in California and Australia*, (Melbourne, 1928), 72.

¹⁵⁵ Deakin, The crisis in Victorian politics, 63.

¹⁵⁶ Walter Murdoch, Alfred Deakin: A Sketch, (Melbourne, 1999) [1923], 85.

¹⁵⁷ La Nauze, *Deakin: A Biography*, 16.



Figure 2.2: Photograph of Alfred Deakin – Source: Punch (Melbourne)¹⁵⁸

Macintyre suggests that Syme always maintained a unique position in supporting 'alternative principles that could sustain the policies he favoured.'¹⁵⁹ When calls for protection steadily grew in Victoria and the local reform leagues increased their strength, Syme's editorials began to urge for introducing a "judicious protective tariff".¹⁶⁰ Decided on what he considered to be a "common sense" economic policy, he sought a means of justifying it. According to J A La Nauze: 'This justification he found, to his own satisfaction, by a rejection of what he conceived

¹⁵⁸ 'The Hon. Alfred Deakin', *Punch* (Melbourne), October 1 1903, 15, Retrieved: <u>http://nla.gov.au/nla.news-article175402608</u>, (December 14 2016).

¹⁵⁹ Stuart Macintyre, *A Colonial Liberalism*, 87-97; J A La Nauze, *Political Economy in Australia*, (Carlton, 1949), Chapter 4.

¹⁶⁰ C E Sayers, *David Syme – A Life*, (Melbourne, 1965), 68.

to be the erroneous methodological foundations of "English" political economy.^{*161} Syme's *Outlines of an Industrial Science* (1876) openly criticised the "deductive" method employed by the English school as advanced through the contributions of Mill, Riccardo and Cairns. Rather than making wealth the subject of inquiry as in the tradition of classical political economy, Syme advocated that such a science should be concerned foremost with industrial activity.¹⁶² His theory of *Industrial Science* vindicated protection and rejected the concept of a "single motive for accumulation", incorporating broader collectivist notions of social good arising from national initiative. The advancement of protection is in this respect driven by a conception of "national development" that embodies colonial liberal ideals. 'If we would stave off poverty, barbarism and crime, we must seek to become a nation at all points: agricultural, mining, manufacturing, trading and shipping.'¹⁶³ In effect, Syme advocated for the development of "inexhaustible" sources of exchange as a means of securing economic and social progress: 'Never was country more richly endowed with all the elements necessary for the creation of wealth; never did country suffer its splendid means to run so recklessly to waste.'¹⁶⁴

Syme advanced the virtue of a moral state while simultaneously forwarding personal causes including land reform and industry protection. He employed Deakin as a regular columnist for the Age and Deakin found himself analysing "questions of the day" from the editorial perspective of the paper and in Deakin's own words: 'championing its platform soon made it

¹⁶¹ La Nauze, *Political Economy in Australia*, 100.

¹⁶² Ibid, 104.

¹⁶³ Sayers, *David Syme*, 69.

¹⁶⁴ 'Editorial' Age (Melbourne), April 2 1860, 3.

my own.'165 The choice of Deakin as candidate for West Bourke was ultimately on Syme's advice and his influence over Deakin's own perceptions about the role of the state had proved persuasive in provoking his conversion to liberal protectionism.¹⁶⁶ Deakin's own political ideas developed under Syme's patronage and La Nauze captured the extent of this influence: 'There must be positive protection for members of society for whom an abstract equality of opportunity did not in fact secure equal opportunities of living...Liberalism had come to mean equality of rights and opportunity, some re-distribution of wealth by taxation, some legislation to curb the impact upon men and women of capitalist enterprise concerned with profit.'167 Deakin's later irrigation policy evoked many of Syme's own values and ideals, and even extended beyond conceptions of a "redistribution of wealth" and the guarantee of "assured markets and profits" for Australian capitalists.¹⁶⁸ Deakin's florid prose, for example, advocates the virtuous society to be gained through the steady application of state-assisted irrigated settlement and highlighted the social benefits of agrarian life. 'The preference will be given to rural employment by men, who, exercising a wise judgement, succeed in obtaining in the country the social and intellectual advantages of town life, and obtain them without those injurious influences which unfortunately appear where masses of men are congregated together.¹⁶⁹ In this respect, Deakin outwardly embraces Jeffersonian ideals and publicly attempts to harness similar emotive sentiments that portrayed the manufacturing classes

¹⁶⁵ Deakin, *The crisis in Victorian politics*, 5.

¹⁶⁶ Ibid, 5-6.

¹⁶⁷ La Nauze, *Deakin: A Biography*, 106-107.

¹⁶⁸ Craig Campbell, 'Liberalism in Australian history, 1880-1920,' in Jill Roe (ed), *Social Policy in Australia: Some Perspectives, 1901-1975*, (Sydney, 1976), 27-31.

¹⁶⁹ Papers of Alfred Deakin, 'Proceedings of the first conference of irrigationists, held in Melbourne on 25th, 26th, and 28th March, 1890', National Library of Australia, MS1540, Item 10/370, Page 18.
negatively.¹⁷⁰ However, Deakin's intentions (like Syme's) were considerably more complex and included an emphasis on agricultural development as a component of wider national production broadly inclusive of a diverse array of interests.

Victorian politics in the 1880s was characterised as an era in which government was occupied with assisting and promoting colonial development whether it be manufacturing, commerce or agriculture.¹⁷¹ In part, this was attributable to the rapid growth in population following the gold rushes in Victoria, (by the 1890s more than a million people occupied the colony compared to less than 100,000 only four decades earlier). The policies of this period coincided with the economic realities of a financial boom that rested on speculation and the opening of British money markets to the colonies.¹⁷² This financial boom led to an inevitable collapse in 1890 and the depression that followed significantly affected the policy trajectory established over the previous decade. Deakin's policies are largely a product of this period and express notions of economic development which again reflect Syme's influence and by extension, popular economic ideas of the time.

In this regard, there are observable connections between Deakin's policy and popular 19th century theories of political economy, including Freidrich List's *National Political Economy* (1841)¹⁷³ and similar ideas discussed by Henry Sidgwick in *Principles of Political Economy* (1883).¹⁷⁴ Sidgwick had advocated for the protection of native industries (with an emphasis on

¹⁷⁰ Quinn, Agrarianism and the Jeffersonian Philosophy, 100.

¹⁷¹ La Nauze, *Deakin: A Biography*, 80-81.

¹⁷² Crawford, Australia, 120-123.

¹⁷³ Friedrich List, *The National System of Political Economy*, trans. Sampson S. Lloyd, (London, 1909); Bo Stråth, 'Mitteleuropa – from List to Naumann,' *European Journal of Social Theory*, 11, 2 (2008), 172-173.

¹⁷⁴ Henry Sidgwick, *The Principles of Political Economy*, (New York, 1883), 489.

agricultural industry) in developing economies such as would be found in the colonies,¹⁷⁵ while List's central thesis expected that a developing nation (in ideal circumstances) would develop its agricultural production and gradually transition into more complex secondary and tertiary industries concerned with manufacturing, services and mercantile interests.¹⁷⁶ In both works, there is a clear line of reasoning that accords with Mill's "one exception to free trade" in "young and rising nations" stipulated in his *Principles of Political Economy* (1848).¹⁷⁷ Macintyre has specifically noted the pertinence of this passage to Victorian colonists.¹⁷⁸ As sources of knowledge such theories can be seen to inspire Deakin in the implementation of his water legislation, and assist in understanding the objectives associated with his policy. In Deakin's view Irrigation policy offered Victoria a clear opportunity: 'I believe that our agricultural production, by utilizing the water supply available...may be made to compare favourably with that of the colony most favoured by nature.¹⁷⁹

Water supply on the northern plains and English riparian rights

By the early 1880s as a result of increased numbers of settlers in northern Victoria and the disastrous effects of the drought between 1877 and 1881, water had become a key social and political issue driven by a necessity to maintain agricultural settlement through the provision of water supply. The most consistent problems were often faced in smaller communities where local municipalities lacked the financial capital or the constituent population required to adequately fund the required works. The Ministry led by James Service (a conservative

¹⁷⁵ Ibid.

¹⁷⁶ List, *The National System*, 193-214.

¹⁷⁷ Ibid.

¹⁷⁸ Macintyre, A Colonial Liberalism, 92.

¹⁷⁹ Alfred Deakin, VPD (Assembly), June 24 1886, 447.

minority government that lasted only months) had responded in part to the issue of water supply by appointing the *Water Conservancy Board* to consider the feasibility of water supply on the Northern Plains. It was headed by former Chief Engineer of Water Supply George Gordon and Assistant Surveyor-General Alexander Black, who recommended in the first instance a scheme that would provide water supply for domestic and stock purposes.¹⁸⁰ The subsequent *Water Conservation Act* (1881) provided municipal councils with the ability (individually or jointly with other municipalities) to produce plans for the construction of major waterworks and form water supply trusts eligible for government loans.¹⁸¹ All waterworks administered under the Act were subject to the control of the Board of Land and Works.

The legislation particularly targeted individual riparian rights to water by granting to the trusts 'exclusive control and management of the various lakes, lagoons, swamps, marshes, rivers, creeks and watercourses' in proposed waterworks districts.¹⁸² In addition, the Governor in Council was authorised to vest in the trusts public water reserves, waterworks streams and reservoirs on any Crown lands or 'begun with moneys voted by parliament.'¹⁸³ Both measures significantly departed from the common law position, although section 48, which granted the waterworks trusts "exclusive" property rights in waters under their control were, in the view of Clark and Renard, 'a clumsy form of "overkill".'¹⁸⁴ The riparian doctrine had originally emerged in England as a necessary legal right to use water within a waterway adjacent to

¹⁸⁰ Victoria, G Gordon and A Black, *Supply of Water to the Northern Plains*, Reports of the Board Appointed to Advise on the Feasibility of Giving a Supply of Water to the Northern Plains – Part 1. Supply for domestic purposes and use of stock, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1881).

¹⁸¹ Water Conservation Act 1881 (Vic) Part 1 – Mode of Obtaining the Appointment of a Waterworks Trust.

¹⁸² Water Conservation Act 1881 (Vic) s 37.

¹⁸³ Clark and Renard, *The law of allocation of water*, 165.

¹⁸⁴ Ibid, 167.

property, it had become binding on the Australian colonial jurisdictions through the reception of English common law with the first settlements.¹⁸⁵

The riparian doctrine

Riparian rights are 'built from Roman law and Roman-derived civil-law concepts of common goods and the natural rights of ownership, together with the English sources of Bracton and Blackstone.'¹⁸⁶ As a reflection of Blackstone's influence, the clarification of the actionable basis of a claim transitions from older doctrines that recognise the antiquity of a diversion to the general principle of first occupancy.¹⁸⁷ The central tenet of the riparian rights doctrine is that any person who owns and occupies land on the bank of a natural stream acquires water use rights which are commonly known as "riparian rights", due to the interpretation that the ownership of the bank of a stream extended to the centre of that stream.¹⁸⁸ Therefore, riparian rights are essentially considered as entitlements to exploit the flow of water where it is attached to the ownership of riparian land.¹⁸⁹ Getzler notes that 'water resources were central to England's precocious economic development in the thirteenth and sixteenth centuries, and then again in the industrial, transport and urban revolutions of the eighteenth and nineteenth centuries.¹⁹⁰ Pre-industrial water law emphasises "natural rights" incident to the ownership of land although Bracton additionally recognises "servitudes created consensually by private

¹⁸⁵ Kate Stoeckel et al., Australian Water Law, (Pyrmont, 2012), 13-15.

¹⁸⁶ Joshua Getzler, A History of Water Rights at Common Law, (New York, 2004), 1-2.

¹⁸⁷ Carol Rose, 'Energy and Efficiency in the Realignment of Common-Law Water Rights', *Journal of Legal Studies*, 19 (1990), 267-69.

¹⁸⁸ Barry Hancock, Watershed or Water Shared, 19.

¹⁸⁹ Getzler, *History of Water Rights*, 121.

¹⁹⁰ Ibid, 1.

persons".¹⁹¹ Rather expectedly, the legal doctrine reflects the dominant usage of water resources at the time placing fairly limited demands on existing streams (such as the powering of mills, navigation, and domestic and stock abstractions on a small scale).¹⁹² In this sense an actionable claim would stem from a use that clearly impacted a neighbour's usage such as works that flood a neighbours lands or a diversion that significantly alters the level of flow to properties downstream. These aspects of early water law in England subsequently provide the basis of the reasonable use test incorporated in the later riparian doctrine.¹⁹³ Essentially, Bracton had provided an initial attempt to 'formulate principles of user-rights within the common law, analysing the assize of nuisance using Roman concepts of praedial servitude and natural right.'¹⁹⁴

In contrast, Blackstone asserted the positive protection of natural rights through an institutionalist lens. Blackstone viewed water as a publicly available corporeal right that is subject to a 'qualified individual property or title during use.'¹⁹⁵ This conception defends the notion of prior use in time while continuing to treat the accepted view that water is common property. In effect, water flowing in a stream could be "occupied" by the act of putting a bucket into the stream and abstracting some of the water. However, only the water in the bucket would actually be occupied by such an act; the remaining water in the stream would still be common

¹⁹¹ T.E. Lauer, 'The Common Law Background of the Riparian Doctrine', *Missouri Law Review*, 28 (1963), 67.

¹⁹² Rose, *Realignment of Water Rights*, 268.

¹⁹³ Ibid.

¹⁹⁴ Getzler, *History of Water Rights*, 65; Hancock, *Watershed or Water Shared*, 10-20. Hancock's thesis also offers a highly informative precis of the ancient origins of water law relating to individual and public "water property" rights.

¹⁹⁵ Getzler, *History of Water Rights*, 154.

property, and subject to occupation by other persons for their own use.¹⁹⁶ The most influential aspect of Blackstone's *Commentaries* with respect to water resources was that it no longer regarded the ancient use test as adequate and thus opened the possibility of defending uses that were contemporary to the time.¹⁹⁷ The riparian doctrine emerged from this history as a usufructuary right to water access as a natural incident of land ownership or occupation. It extends to the use and control of water only for as long as it remains in the possession of the user. Importantly, it does not establish a property right in the water itself; rather it is a right that is connected to the ownership or occupation of riparian land. A "reasonable use" test is applied and entitles the user to ordinary uses of the water that flows past riparian land. Users are additionally entitled to extraordinary use (including the construction of a dam on the alveus of a watercourse) of the water provided that usage does not "interfere with the rights" of riparian owners situated "upstream or downstream". The doctrine also distinguishes between water that flows over riparian land through a known and defined channel, and water that flows indiscriminately over riparian land.¹⁹⁸

Victorian governments had at various times found riparian rights preclusive to meeting the specific needs of rural settlers and there are other examples of legislation from the colonial period (such as the *Drainage of Land Act* 1864) that attempt to circumvent them to a limited extent.¹⁹⁹ The *Water Conservation Act* (1881) was the first resolute attempt to overcome riparian rights and provide for agricultural settlements that desperately required a consistent

¹⁹⁶ Lauer, Background of Riparian Doctrine, 97.

¹⁹⁷ Rose, Realignment of Water Rights, 269.

¹⁹⁸ Stoeckel, Australian Water Law, 13-15.

¹⁹⁹ Clark and Renard, *The law of allocation of water*, 154-156. In particular the *Drainage of Land Act 1864* (Vic) was noted as the earliest form of legislation that amounted to "an incursion on the riparian right insofar as it enabled the customary flow of a watercourse to be redirected".

supply of water for domestic and stock needs. However, a growing movement of "irrigationists" argued that the legislation should also be extended to provide irrigation water for northern settlers. Deakin's affiliation with influential actors at the forefront of the irrigationist movement in time saw him become its most active and determined proponent.

The 'irrigationist' movement

Among those who had paid attention to the rising status of Deakin was the prominent irrigation activist Hugh McColl. McColl had previously pursued water supply for goldfields towns and agricultural communities and was at the fore of the *Grand Victorian North-Western Canal Company* with entrepreneur Benjamin H. Dods.²⁰⁰ McColl's role in promoting the company had definitely attracted increased public attention: 'In 1871, irrigation in Victoria was scarcely known, and the primary achievement of the company...was its value as a propaganda medium to arouse public awareness of irrigation.'²⁰¹ In the Legislative Assembly McColl was openly ridiculed and maligned for his obsession with irrigation, and his motions were regularly laughed down as absurdities. At every opportunity McColl brought the subject of irrigation to the attention of the Victorian Parliament. He consistently furnished assembly debates on water conservation with petitions, publications and costings all associated with bringing irrigation to arid colony lands.²⁰² McColl undoubtedly influenced Deakin's belief in irrigation as public

²⁰⁰ Lionel Wigmore, *Struggle for the Snowy: the background of the Snowy Mountains Scheme* (London, 1968). Championed by entrepreneur Benjamin Dods, the Grand Victorian North-Western Canal Company was intended to extend from the town of Murchison on the Goulburn River, winding through the Victorian north-west and eventually making its way down to the sea at Portland.

²⁰¹ N. J. Churchyard, 'Pioneers of Irrigation in Victoria: Hugh McColl MLA – Visionary and Legislator', (A collection of articles from the journal *Aqua* - Republished by the SRWSC), State Rivers and Water Supply Commission, (Armadale, 1976), 4.

²⁰² McColl was well researched and consistent in his approach, which was to offer the assembly the best information available on the subject of irrigation. During one foray on the question of the Water Conservation Bill, McColl presented costings for the construction of headworks, petitions requesting the immediate commencement of investigations regarding irrigation bearing thousands of signatures and reports demonstrating the benefits of irrigation from such overseas bodies as the Connecticut Board of Agriculture (US). Hugh McColl, *VPD* (Assembly), November 29 1881, 916-922.

policy, both were progressive liberals and clearly in favor of policy that would encourage and protect agricultural industry.²⁰³ While the *Water Conservation Act* (1881) had received the support of key irrigationists in the parliament, McColl was critical of the fact that it fell short of providing for the irrigation of the northern plains. On this specific point, John Quick noted that, 'Some portions of Messrs. Gordon and Black's scheme may be approved of as giving local supplies, but it does not in any way tackle the greater and more radical question of a national system of irrigation.'²⁰⁴ Agitation for irrigation continued to grow within and outside the parliament and the O'Loghlen ministry was under increasing pressure to address the growing issue.

In September 1882, the parliament received another report from Gordon and Black directly addressing the subject of irrigation. In particular, it stated that:

No amount of artificial storage that is feasible can materially alter this condition of things, and consequently, in all localities where the natural supply of water in the rivers is liable to fail altogether during the season of growing crops, irrigation will always be restricted to narrow limits.²⁰⁵

This obviously fell short of what McColl considered to be an appropriate solution to irrigating the northern plains, although Gordon and Black did allude to the possibility of irrigating alluvial flats surrounding more permanent streams such as the Murray and Goulburn Rivers. In any case, the timing of the report could not fit the timetable of the O'Loghlen ministry and

²⁰³ 'Political demonstration at Sandhurst', Argus (Melbourne), April 22 1882, 12.

²⁰⁴ John Quick, VPD (Assembly), 20 October 1881, 463.

²⁰⁵ George Gordon and Alexander Black, *Victoria, Supply of Water to the Northern Plains – Irrigation – First Report,* Parliamentary Paper (no.74), (Melbourne, Government Printer, 1882), 9.

was not considered in the 1882 session.²⁰⁶ Outside the parliament public agitation had increased significantly in the drought affected areas north of the dividing range. Public meetings concerning irrigation were regularly being held in many regional towns, with large attendances to meetings in Echuca, Rochester and Swan Hill. The political influence of the selected regions was growing and by 1883 a number of irrigation leagues had formed, including the prominent *Central Irrigation League* led by its president Rev. Elisha Clement De Garis (a contemporary of McColl and long-time irrigation advocate).

An irrigation policy

The elections of February 1883 had produced a parliament in which no party could claim a governing majority and resulted in a coalition between the conservative *Constitutionalists* led by James Service and Graham Berry's *Liberals*.²⁰⁷ This tentative step toward governing unity between formerly fierce combatants produced a previously unseen era in Victorian colonial politics, later known as the "Grand Coalition".²⁰⁸ By this time Deakin had risen in status significantly in the liberal movement, resulting in his appointment to the Ministry overseeing the joint portfolios of public works and water supply.²⁰⁹ The new coalition was assured that previous legislative efforts should be extended to provide for irrigation, and Deakin introduced an amending water conservation Bill that referred to examples of irrigation in India, France, Spain and Italy, as well as the American states of California and Colorado. ²¹⁰ His second

²⁰⁶ Question by Hugh McColl MLA, Hansard (Assembly) 22 November 1882.

²⁰⁷ La Nauze, *Deakin: A Biography*, 80; John Lack, 'Dr Jekyll and Mr Hyde? – Service and Gillies: The grand coalition premiers 1883-1890,' in Paul Strangio and Brian Costar (eds), *The Victorian premiers 1856-2006* (Annandale, NSW, 2006), 78.

²⁰⁸ Ibid. (Lack), 74-90.

²⁰⁹ Argus (Melbourne), March 26 1883, 4.

²¹⁰ Alfred Deakin, VPD (Assembly), October 10 1883, 1391.

reading speech demonstrated a remarkable knowledge, understanding and authority of the topic that revealed a clear connection to McColl's influence, which was reflected by Deakin's personal gratitude. 'I may say, with regard to information respecting irrigation in California, and upon other matters, that I am considerably indebted to the honourable member for Manderang (Mr. McColl) for the enormous quantity of documents he has placed at my disposal.'²¹¹

The speech was also revealing of Deakin's early philosophical influences: 'We have evidence to show us that irrigation...is at least calculated to make agriculture a sure and certain calling, with profits that could be relied on whatever the seasons might be.'²¹² This was a clear appraisal of irrigation that emphasised continuous agricultural development, and was highly indicative of Deakin's intentions. Delivering certainty to agriculture where a highly variable climate had precluded it, was in Deakin's view a central aspect of delivering development and growth and is reflective of List's concept of agricultural growth and prosperity: 'If prosperity is to bring real benefit to individuals and nations, it must be continuous. It however, becomes continuous only in case it increases gradually, and in case the nation possesses guarantees for this increase and for its duration.'²¹³

Deakin's Act incorporated and built upon the experience of earlier administrative arrangements where it was considered there would be an obvious benefit to advancing irrigation. In early 1881 the O'Loghlen ministry had 'invoked dormant powers contained in the Free Selection

²¹¹ Ibid.

²¹² Alfred Deakin, VPD (Assembly), October 10 1883, 1389.

²¹³ List, The National System, 198.

legislation, notably in the 1869 Land Act.²¹⁴ These actions represented the formalisation of an accepted administrative practice already applied by the Lands Department where strips of land were reserved to the Crown adjacent to either side of rivers that formed a boundary between two grants. This prevented landholders whose properties were adjacent to rivers from owning land that "laterally or vertically" connected to the watercourse, and thereby prevented the landholder from obtaining riparian rights.²¹⁵

Deakin saw an opportunity to build on this measure and that this offered the best possible chance of enabling an irrigation supply. As a result, the *Water Conservation Act* (1883) made it possible for any 'Waterworks or Irrigation Trust...*or any person*' to obtain a compulsory easement over land 'for the purposes of irrigating or draining land of water which has been used for irrigation or domestic supply with the sanction of the Governor in Council.'[*Emphasis Added*]²¹⁶ The concept of conferring strong legal rights such as "easement of aqueduct" on individuals, was of course regarded by many in the parliament as a particularly controversial subject. However, Deakin maintained that the uniqueness of the provision was the direct result of previous legislation not having dealt with irrigation. Deakin's introduction of the clause was undoubtedly an important innovation, and according to Clark and Renard it was a significant step in overcoming 'the restrictive rules of the riparian doctrine which confined the use of water to riparian land.'²¹⁷

²¹⁴ Powell, *Garden State*, 101.

²¹⁵ Clark and Renard, *The law of allocation of water*, 161-162; Clark and Renard have referred to the application of judicial reasoning in providing an explanation of the effects of this practice.

²¹⁶ Water Conservation Act 1883 (Vic), s 107.

²¹⁷ Clark and Renard, *The law of allocation of water*, 171.

Deakin's later legislative endeavours in the colonial parliament (in particular his well-known and discussed "Irrigation Act") largely overshadow his efforts in drafting the *Water Conservation Act* (1883), which was the result of the concerted effort of a number of individuals to bring forward legislation to advance the interests of agricultural settlers in the northern regions. The 1883 Act also represented the broader efforts of colonial legislators to overcome the imported common law doctrine of "riparian rights" with the intention of ensuring the legal certainty for the provision of water to maintain agricultural settlement in the rural regions of the colony. Deakin's contribution to the formation of this legislation reflects important social liberal and agrarian influences, and the influence of ideas concerning the fundamental role of the state in national economic development. Shortly after the measures passed the parliament Deakin was appointed Solicitor-General and chose to relinquish his water supply responsibilities, although this self-imposed hiatus was relatively brief and he returned to the portfolio in 1884 with a renewed focus on the Western American example.

'Irrigated Development'

A key difference between the *Water Conservation Act* (1883) and the 1881 Act before it related to ability of the trusts to finance works. The 1883 legislation empowered Irrigation Trusts to 'borrow against the security of the rates to be levied within the district',²¹⁸ but unlike waterworks trusts under the previous Act, irrigation trusts were unable to obtain government loans. Without the financial backing of the Crown the irrigation trusts were unable to acquire sufficient capital to cover the cost of the works and quickly began to experience difficulties. By late 1884 they were on the verge of collapse and legislative amendments were made to

²¹⁸ Clark and Renard, *The law of allocation of water*, 170.

secure them through the provision of loans approved by the Governor in Council. However, these amendments were little more than a band-aid solution and the government became focused on broadly restating the legislative arrangements in a more comprehensive format. The decision was subsequently made to appoint a royal commission to properly investigate the advancement of irrigation through sending an investigative tour to Western America (following the trail that had previously been blazed by McColl's extensive correspondence).²¹⁹ The responsibility for leading the tour was passed to Deakin, and his study formed the basis of the subsequent report delivered to the parliament, and soon after into Deakin's first major legislative achievement, the *Irrigation Act* (1886).

The Water Supply Royal Commission 1884

In December 1884 then Premier James Service announced the appointment of a Royal Commission on Water Supply with Deakin as its president and chair. In essence, the Royal Commission had two core objectives: Deakin make an overseas study tour and compile his research to provide an account of best irrigation practice for the purposes of placing local schemes on a more sound footing; And, a second tour of inspection throughout Victoria focusing on identifying the relevant successes, failures and future prospects of irrigation throughout the Wimmera, Mallee and Central North districts.²²⁰ The Victorian tour endorsed the necessity of large-scale irrigation projects in key areas, with the intention that these would underpin the subsequent legislation. As the existing irrigation under the 1883 legislation was small and followed the topography of riverine basins (as Gordon and Black's reports had intended), the necessary implication was that the development of these regions into much larger

²¹⁹ Powell, Garden State, 107.

²²⁰ 'The tour of the water commission', *Argus* (Melbourne), May 18 1885, 6. The commission had been suggested a year earlier by future premier Thomas Bent who considered that Hugh McColl could make such a journey to study irrigation in California. Thomas Bent, *VPD* (Assembly), October 10 1883, 1395.

irrigation schemes required the involvement of the State. The royal commission included public servants, engineers, and members of parliament, and a board comprising Alexander Black, Hugh McColl, Robert Lewis Ellery (Government Astronomer), and Stuart Murray.



Figure 2.3: Photograph of Stuart Murray – Source: State Library of Victoria²²¹

²²¹ Victoria, State Rivers and Water Supply Commission photographer, State Library of Victoria – Rural Water Corporation collection, Retrieved: <u>http://digital.slv.vic.gov.au/</u>, (December 16 2016).

Stuart Murray (1837-1919) was born in Dundee, Scotland and had followed the lure of the gold rushes to Victoria. Engineering studies he had commenced at St Andrews (Scotland) were later completed in Melbourne,²²² and eventually led to Murray conducting surveys for the Gordon and Black investigation into irrigation before assuming the role of engineer for the *United Echuca and Waranga Waterworks Trust* where he contributed to the planning stages of the original Goulburn Weir.²²³ Murray's contributions as an engineer and surveyor in various government water supply roles were critical to all of the early achievements in rural water supply in Victoria. His most influential role came much later when he was the Victorian delegate to the *Inter-State Royal Commission on the River Murray* (1902).²²⁴

Deakin returned from the overseas tour with a vision of irrigated agricultural development that was significantly more advanced than any of his contemporaries. The journey particularly altered Deakin's perceptions of the inherent value irrigation could offer Victorian agricultural production. 'If Victoria is to...utilise her abundant natural advantages, bring her productiveness to the highest point, and secure to the agricultural population of her arid districts a permanent prosperity, it must be by means of irrigation.'²²⁵ The significance of this statement is clear. It emphasised a positive role for the state that closely aligned to a Listian view of national

²²² Valerie Yule, 'Murray, Stuart (1837–1919)', Australian Dictionary of Biography, (Canberra, 1974), Retrieved: <u>http://adb.anu.edu.au/biography/murray-stuart-4281/text6925</u>, (March 10 2012).

²²³ Colin Swinburne Martin, Irrigation and Closer Settlement in the Shepparton District 1836 – 1906, (Carlton, 1955), 48-49.

²²⁴ Valerie Yule, 'Murray, Stuart (1837–1919)', Australian Dictionary of Biography, (Canberra, 1974), Retrieved: <u>http://adb.anu.edu.au/biography/murray-stuart-4281/text6925</u>, (March 10 2012).

²²⁵ Alfred Deakin, Irrigation in Western America so far as it has Relation to the Circumstances of Victoria – A Memorandum for the Members of the Royal Commission on Water Supply, Parliamentary Paper (no.19), (Melbourne, Government Printer, 1885), 56.

prosperity that wasn't 'greater in the proportion in which it has amassed more wealth (i.e. values of exchange), but in the proportion in which it has more developed its powers of production.'²²⁶



Figure 2.4: The "Tour of the Royal Commission" – San Francisco February 1885 – Including: E S Cunningham (left), Deakin (centre), J D Derry (behind Deakin), and J L Dow (seated) – Source: J A Alexander 'The Life of George Chaffey²²⁷

²²⁶ List, *The National System*, 117.

²²⁷ Alexander, *Life of George Chaffey*, 87.

Deakin's studies of western American farming considered the crops that would offer the greatest yields in the Victorian context and his insights offered agriculturalists a window into the most successful cropping and farming techniques currently being utilised.²²⁸ The clearest observation from the tour was Deakin's criticism of the prior appropriation doctrine which recognised the superior rights of one appropriator over another according to who could demonstrate the first use. Deakin contended that 'the settlement of this difficulty, whatever it may be, must be such as to lead to an extension of irrigation by providing for the utilization of all the waters of the State under conditions that will protect alike the public interest and the prior appropriator.'²²⁹

During the tour Deakin had realised that concerns over the riparian doctrine were not limited to Australian jurisdictions and that in North America, similar challenges to the "judicial apportionment" of water were occurring.²³⁰ He intended to avoid the American experience where competing claims could give way to protracted litigation, although memories of the years of land monopoly in Victoria were also a likely guiding influence. He therefore argued that *'the State should exercise the supreme control of ownership* over all rivers, lakes, streams, and sources of water supply, except springs rising upon private lands.' [*Emphasis Added*]²³¹

The Western America report also offered Deakin's insights into the distinct social advantages that he had witnessed in the United States as a consequence of irrigated agriculture:

²²⁸ Deakin, Irrigation in Western America, 38-44.

²²⁹ Ibid, 10.

²³⁰ Clark and Renard, *The law of allocation of water*, 172.

²³¹ Deakin, Irrigation in Western America, 54.

From these sources a family largely supplies its own wants in the way of food, and by the sale of its products provides clothing and comforts...and in the proximity of schools and settlement the settler himself has no sense of exile from civilisation, and need not fear that his children being left to run wild will grow up unfit for any change of life.²³²

In this respect, the social aspects of the initiatives were equally valuable to Deakin and they echo the emotive Jeffersonian sentiments of agrarian life characterised a century earlier. Such ideals guided Deakin as he manipulated the key recommendations of his report on Western America into legislative provisions, with the intention of delivering the greatest quantity of water, at the least possible expense and over the greatest possible area of land.²³³ By February 1886 Service and Berry's coalition had stood for three years and had proven itself as an exemplar of governing stability. Both leaders decided to stand aside and make way for their successors. Duncan Gillies²³⁴ assumed the office of Premier and Deakin (now leader of the Liberals) was content to take the roles of chief secretary, minister of water supply and deputy to Gillies.²³⁵ The new Premier's electorate of Rodney encompassed many selected regions and Gillies was unequivocal during the election campaign, 'the question of greatest magnitude at the present time is irrigation.²³⁶

²³² Ibid, 49.

²³³ Alfred Deakin, VPD (Assembly), June 24 1886, 438.

²³⁴ A short biography of Duncan Gillies can be found in part four of this chapter.

²³⁵ Lack, *The grand coalition premiers*, 82.

²³⁶ Age (Melbourne), February 20 1886, 9.

Deakin's "Irrigation Act"

Deakin's legislative design amalgamated and built upon the most pertinent and effective components of the previous Water Conservation Acts, particularly in the area of riparian rights. The legislation established a new system of irrigation and water supply trusts and formalised many relevant and effective regulatory practices, including provisions that enabled the licensing of water diversions. As a legislative instrument, it was very much a product of Deakin's overseas tour and was absolutely unique to the Victorian jurisdiction. The *Western America* report gave particular attention to the constitution of Colorado where all streams within state boundaries were declared "public property".²³⁷

In the Assembly, Deakin was adamant that there was no alternative to State control as irrigation in the existing areas of the northern plains had not given rise to the type of development the government had then envisaged. 'It would seem that the supreme power and responsibility in connexion with the care and custody of water and, in certain cases, in the construction and management of works, can be vested nowhere else than in the State itself.'²³⁸ The eventual section established the presumption that the Crown's right to flowing water was primary unless a private person could assert a superior riparian title.

The right to the use of all water at any time in any river stream watercourse lake lagoon swamp or marsh shall for the purposes of this Act in every case be deemed to be vested in the Crown until the contrary can be proved by establishing any other right than that of the Crown to the use of such water.²³⁹

²³⁷ Deakin, Irrigation in Western America, 8.

²³⁸ Alfred Deakin, VPD (Assembly), June 24 1886, 430.

²³⁹ Irrigation Act 1886 (Vic) s 4.

Clarifying the issue of primary interest in the water opened the door for the establishment of major head works, thereby delivering water for irrigation over large areas and long distances. Private irrigation diversions would be propped up by licensing provisions and easement of aqueduct over private lands.²⁴⁰ The extension of water rights to irrigators through licensing diversions and the framework of irrigation trusts established the general principle of tying water rights to land title.²⁴¹ This largely reflected Deakin's report on Western America irrigation and Deakin's specific belief of the necessity to protect irrigators against the "monopolistic endeavours" of capitalists. 'In any introduction of irrigation into Victoria it will be necessary to provide against the separate ownership of land and water, except where the water may belong to the State or is sold under its regulations.'²⁴² Furthermore, the nexus between water and land was, in Deakin's view crucial to the central principle of irrigated development, as the only way the state could guarantee that irrigation farmers would 'enjoy in perpetuity the use of the water necessary for the irrigation of their respective lands.'²⁴³ Section six of the Act enshrined this concept in law, conferring rights to water only by "administrative grant".²⁴⁴

²⁴⁰ Irrigation Act 1886 (Vic) s 121.

²⁴¹ Hancock, Watershed or Water Shared, 25.

²⁴² Deakin, Irrigation in Western America, 47.

²⁴³ Ibid, 46.

²⁴⁴ Irrigation Act 1886 (Vic) s 6; Clark and Renard, The law of allocation of water, 178.

	Irrigation Trust	Year Formed	Area (Acres)
1.	Bacchus Marsh	1889	950
2.	Bairnsdale	1890	128 000
3.	Benjeroop and Murrabit	1886	19 840
4.	Boort – North	1888	12 000
5.	Boort – East	1888	29 679
6.	Campaspe	1889	46 447
7.	Carrum	1889	10 000
8.	Cohuna	1886	97 920
9.	Dry Lake	1890	1 513
10.	Emu Valley	1889	3 700
11.	Harcourt	1889	1 475
12.	Kerang – East	1889	18 100
13.	Koondrook	1886	17 480
14.	Leaghur and Meering	1885	8 960
15.	Lerderderg	1890	2 019
16.	Marquis Hill	1888	13 060
17.	Myall	1890	3 780
18.	Pine Hills	1889	15 120
19.	Rodney	1889	278 400
20.	Swan Hill	1887	15 000
21.	Torrumbarry – North	1889	19 387
22.	Tragowel Plains	1886	251 520
23.	Twelve-Mile	1886	9 920
24.	Wandella	1888	32 290
25.	Werribee	1888	1 468
26.	Western Wimmera	1888	1 643 776
27.	Yatchaw	1888	6 753
	Rural Waterworks Trust	Year Formed	Area (Acres)
1.	Avoca United	1882	62 900
2.	Bet Bet	1882	224 000
3.	Kara Kara	1886	256 000
4.	Loddon United	1882	180 480
5.	Lowan	1883	404 000
6.	Shepparton	1882	495 000
7.	St Arnaud	1882	481 100
8.	Stawell	1882	72 000
9.	Swan Hill	1882	256 000
10.	Echuca and Waranga United	1882	265 120
11.	Wimmera United	1882	1 088 000
12.	Yarrawonga	1885	249 600

Figure 2.5: Irrigation Trusts and Rural Waterworks Trusts in 1890 – Source: Victorian Water Supply – Fourth Annual General Report²⁴⁵

²⁴⁵ Victoria, Charles Langtree, Victorian Water Supply – Fourth Annual General Report, Parliamentary Paper (no.147), (Melbourne, Government Printer, 1890), Appendices.

[Figure ommitted for copyright purposes. Refer to Powell, 'Watering the Garden State', 124.]

Figure 2.6: Major Waterworks Trusts and Irrigation Trusts 1890 – Source: Powell, 'Watering the Garden State'²⁴⁶

Deakin also intended that the measures would balance the paternalist actions of the State with an acceptable degree of local responsibility. The government's policy, according to Deakin, was one of 'State aid, not of State initiative.'²⁴⁷ It would be expected that landowners acting independently of the government would establish and control the irrigation schemes themselves. 'I feel just as sure now as I did then that the basis of successful irrigation must be that individual energy and that joint action on the part of the farmers themselves which no State can possibly supply that natural impetus which leads men to invest their capital and put forth their labour, in order that they may obtain a better return for their capital and labour than they

²⁴⁶ Powell, Garden State, 124.

²⁴⁷ Victoria, Parliament, Alfred Deakin *Royal Commission on Water Supply - Fourth Progress Report – Irrigation in Egypt and Italy*, Parliamentary Paper (no.111), (Melbourne, Government Printer, 1887), 5.

have obtained hitherto.²⁴⁸ Under the Act, the Trusts were "entitled and liable" to use and pay for water from the national works,²⁴⁹ and were only authorised to borrow to construct their own works against security of payable funds from water sales and rates.

Success and failure

The Irrigation Act had passed the parliament in December 1886 and within a few weeks Deakin's attention had unexpectedly turned to the first Imperial Conference in London at the behest of the cabinet.²⁵⁰ However, Deakin's contribution to irrigation and water supply continued throughout the later years of the "Grand Coalition". The broad strokes offered by the Irrigation Act were complimented by the government's more specific intentions when an agreement was reached with the Canadian brothers, George and William Benjamin Chaffey to develop an irrigation settlement in Mildura.²⁵¹ The agreement was another product of the American tour where Deakin's touring party had come across the brothers' newly established irrigation settlement in Ontario California. For Deakin, the importance of the Mildura enterprise was obvious: 'Practice alone can supply the special knowledge of the best method of dealing with each crop, in each soil and season, with the most economical use of water. It is hoped that invaluable lessons as to certain products will be learned at Mildura'.²⁵²

²⁴⁸ Alfred Deakin, VPD (Assembly), June 24 1886, 428.

²⁴⁹ Irrigation Act 1886 (Vic), s 134.

²⁵⁰ La Nauze, *Deakin: A Biography*, 89.

²⁵¹ Powell provides a comprehensive account of the "Chaffey experiment", its benefits and its significant failures. Powell, *Garden State*, 120-127.

²⁵² Deakin, Irrigation in Egypt and Italy, 6.

Similarly, Deakin's report for the royal commission *Irrigation in Egypt and Italy* (the product of a hastily arranged study tour while travelling to the first Imperial Conference in London)²⁵³ further advanced the technical understanding of large-scale irrigation projects. While there was little time to properly investigate the works first hand and the report relied heavily on the application of statistical data obtained from government officials, Deakin's practical insights highlighted the function he believed that state-sponsored irrigation would serve for the Victorian economy. 'In both [Egypt and Italy] it is demonstrated that no lesser authority can be entrusted with so vital an element of national production.'²⁵⁴ Even after the "Grand Coalition" had ended and the financial collapse had taken hold Deakin continued his study of irrigation and contributed a series of articles for *The Age* while on a tour of India (a result of Syme's encouragement).²⁵⁵ The articles were later published in one volume titled *Irrigated India: an Australian View of India and Ceylon*²⁵⁶ and offered a familiar appraisal of the need for a paternalist state in the advancement of irrigated development: 'Here as elsewhere, the *laissez faire* doctrine has been abrogated by the needs of the situation, and the State has stepped in to save its people from penury and serfdom.'²⁵⁷

Of course, so much of what Deakin had intended never came to pass, and as La Nauze notes, Deakin felt what he regarded as "failures" immensely.²⁵⁸ The trusts' system was a particular disappointment. Most trusts 'preferred to default on their loan repayments to the State rather

²⁵³ Murdoch, Alfred Deakin, 99.

²⁵⁴ Deakin, Irrigation in Egypt and Italy, 42.

²⁵⁵ La Nauze, *Deakin: A Biography*, 133.

²⁵⁶ Alfred Deakin, Irrigated India: An Australian View of India and Ceylon, Their Irrigation and Agriculture, (London, 1893).

²⁵⁷ Ibid.

²⁵⁸ La Nauze, *Deakin: A Biography*, 86.

than to raise water charges' and occasionally, 'these charges did not cover operating costs.'259 By the 1890s the collapse of the land boom and the Depression that followed produced disastrous consequences for rural communities, leaving most irrigation trusts in severe financial trouble and resulting in the appointment in 1894 of another Royal Commission on Water Supply to inquire into their financial position and prospects.²⁶⁰ It subsequently found multiple instances where the trusts had used government finances to fund entirely unjustifiable works. All too often trusts were found to have extended channels over excessive distances as many landholders attempted to make irrigation fit existing patterns of development that included 'large areas of freehold land that had been taken up under earlier legislation.'²⁶¹ The Chaffey enterprise in Mildura was suffering from the Chaffey brother's overleveraged financial position, the want of a railway connection and the collapse of the land boom. When common seasonal low-flow events and droughts impacted more severely, the enterprise began to flounder. Criticism was directed at the Chaffey's promotion of Mildura and misrepresentations contained within their promotional material and the Mildura Royal Commission was subsequently established to investigate the condition and prospects of the settlement. The commissioner's recommended the cancellation of the indenture between the government and the Chaffey brothers and the reversion of the Mildura settlement to the crown,²⁶² and soon after, legislation was passed authorising its continuation as the *First Mildura Irrigation Trust*.²⁶³ The chief recommendations of the Royal Commission on Water Supply included the reduction of

²⁵⁹ Powell, Garden State, 120.

²⁶⁰ Victoria, *Report of the Royal Commission on Water Supply*, Parliamentary Paper (no.20), (Melbourne, Government Printer, 1896).

²⁶¹ Powell, *Garden State*, 117.

²⁶² Victoria, *Report of the Mildura Royal Commission*, Parliamentary Paper (no.19), (Melbourne, Government Printer, 1896), xxiii.

²⁶³ Mildura Irrigation Trusts Act 1895 (Vic).

interest payments and payments into the sinking fund and reflected earlier reforms pursued by Deakin as minister in 1890.²⁶⁴ Ultimately, the measures were included in the *Water Supply Advances Relief Act* (1899) and reduced the overall indebtedness of the irrigation and water supply trusts by writing off 75 per cent of their liabilities.²⁶⁵

Summary

La Nauze suggests that for Deakin, irrigation was considered 'an "ideal" in the same breath as nation-making and social justice.²⁶⁶ This intent was clear in the scheme that Deakin had envisaged. A scheme that relied on four fundamental tenets: the *nationalisation of water* 'gave the Crown the power to allocate water freely²⁶⁷ and overcame riparian rights; the principle of *easement of aqueduct* was entrenched in the legislation through the inclusion of "licensing" provisions which allowed the minister to authorise "rights of way" to any "person or body" and get the water to where it would be used;²⁶⁸ the establishment of the *nexus* between irrigation water and agricultural land by administrative grant ensured that irrigation water would only assist agricultural development; and, the principle of *local responsibility* enabled the state to construct the necessary headworks while the trusts would be responsible for distributary works, with the intention that this would encourage development on a much larger scale while the state maintained administrative control.²⁶⁹ Deakin believed that these four principles working together would ensure that the primary objective of the Act *irrigated development* on a large

²⁶⁴ Alfred Deakin, VPD (Assembly), November 26 1896, 3821.

²⁶⁵ Water Supply Advances Relief Act 1899 (Vic) s 3(1) and (2).

²⁶⁶ Ibid, 84.

²⁶⁷ Peter N. Davis, 'Australian and American Water Systems Compared', *Boston College Law Review*, Vol 9(3) (1968), 651.

²⁶⁸ Irrigation Act 1886 (Vic), s 121.

²⁶⁹ Clark and Renard, *The law of allocation of water*, 180.

scale would be achieved. This objective was equally imbued with the intent to further decentralise the population, deliver water security to farmer settlers and most importantly, to increase agricultural production as a means of fostering broader economic growth. Deakin's closing remarks in his second reading speech to the assembly captured this sentiment perfectly: 'I believe that our agricultural production, by utilizing the water supply available for irrigation, may be made to compare favourably with that of the colony most favoured by nature. We shall have a large and prosperous population obtaining its wealth by the surest possible means, that is from the soil, delivered from the risks of the natural rainfall, not dependent upon the chances of clouds, but able to secure a shower when it is needed, and to apply just the necessary quantity of water to bring their products to the highest state of perfection so as to obtain the largest yield.'²⁷⁰

²⁷⁰ Alfred Deakin, VPD (Assembly), June 24 1886, 447.



Figure 2.7: Alfred Deakin "Striking the Rock" – Source: *Punch* (Melbourne)²⁷¹

²⁷¹ Punch (Melbourne), June 3 1886, 7, Retrieved: <u>http://nla.gov.au/nla.news-article174568503</u>, (December 16 2016).

Deakin: Legislator...Innovator...Entrepreneur?

Deakin's prolific involvement in advancing rural water supply legislation and particularly the Irrigation Act were among his most important achievements in the Victorian parliament. These legislative innovations eventually became the template for similar legislation in other Australian jurisdictions and as Clark and Renard suggest, 'there is little doubt that his efforts constituted the major single contribution to prevailing Australian principles of water management law.²⁷² Deakin's involvement significantly advanced the progression of rural water supply legislation in colonial Victoria and clearly exceeded the plans of his contemporaries. Put another way, while it's certain that the general movement towards comprehensive legislation would have eventually produced measures for irrigation, once Deakin was involved his influence was so pronounced that the overall legislative focus was transformed. In particular, Deakin's design incorporated key aspects of his social liberal philosophy with the principal legislative objectives actively focused on his distinct vision of national economic development, which formed the foundation of institutional arrangements that directed the governance of rural water supply thereafter. To this end, a question arises surrounding the significance of Deakin's role as an institutional actor and whether he may be more appropriately considered as an *institutional entrepreneur*.

The 'Institutional Entrepreneur' – new institutionalist approaches

The evaluation of the activities of actors within institutional frameworks has seen a considerable focus shift toward the concept of the *institutional entrepreneur*. One of the earliest usages of the term was employed by sociologist Shmeul Eisenstadt as a means of adding 'a

²⁷² Clark and Renard, *The law of allocation of water*, 172; David Ingle Smith similarly commented that Deakin was the "founder of Australian water law"; Smith, *Water in Australia*, 152.

sense of agency, historical contingency and empirical induction' to Talcott Parsons' *Evolutionary Theory*.²⁷³ In this context Eisenstadt viewed institutional entrepreneurs as 'the principal force capable of reconfiguring a society's institutional complex by either altering an existing institutional domain or by erecting an entirely new institutional space, linked to extant institutions, but physically and cognitively new.'²⁷⁴ The term itself is inspired by Max Weber's *charismatic carrier groups* while its principal use in new institutional analysis has served as a potential resolution to the perceived structure/agency dilemma. In this regard, introducing agency to institutional analysis through the "institutional entrepreneur" is considered an effective method of accounting for the endogenous adaptation of institutions.²⁷⁵ Furthermore, the concept of the institutional entrepreneur has attracted a considerable level of academic interest, particularly through the focus on new institutionalism in the domains of political science and organizational studies.

In political science there has been increasing interest 'in entrepreneurs-individuals who change the direction and flow of politics.'²⁷⁶ The focus on political entrepreneurs in new institutional analysis tended away from traditional conceptions of charismatic leadership (where innovation and change are relatively unexpected phenomena) to the specific consideration of rational actors capable of "adding dimension" to and advancing political debate for self-interested

²⁷³ Seth Abrutyn, 'Revisiting and reinvigorating evolutionary institutionalism: Bringing institutions back to life', in Harry Dahms, *Social Theories of History and Histories of Social Theory*, Vol 31 (Book Series: Current Perspectives in Social Theory, 2013), 265; Shmeul N Eisenstadt, 'Cultural Orientations, Institutional Entrepreneurs, and Social Change: Comparative Analysis of Traditional Civilizations', *American Journal of Sociology*, Vol. 85 No. 4 (1980), 840-869; Talcott Parsons, 'Evolutionary Universals in Society', *American Sociological Review*, Vol. 29(3) (1964), 339-357.

²⁷⁴ Abrutyn, *Revisiting evolutionary institutionalism*, 265.

²⁷⁵ Julie Battilana, 'Agency and Institutions: The Enabling Role of Individuals' Social Position', *Organization*, Vol. 13(5) (2006), 654.

²⁷⁶ Mark Schneider and Paul Teske, 'Toward a Theory of the Political Entrepreneur: Evidence from Local Government', *American Political Science Review*, Vol 86(3) (1992), 737.

reasons. Entrepreneurs, in this sense, 'would have to perceive that they could gain from the creation of an institution, and be willing to invest (time and other resources) in its creation.'²⁷⁷ In this regard, William Riker's notion of "heresthetics" has enabled the study of a 'class of individuals who help propel political and policy changes'²⁷⁸ through engaging in a process of *creative destruction*. By this and similar rational choice approaches, the political entrepreneur is seen to attempt to generate for themselves more profitable political outcomes from actively promoting institutional adaptation and formation. However, the significant limitation of these approaches is, of course, reflected by the entrepreneurs' retained status as a rational self-interested actor, thus blocking out actions that may also be considered altruistic or purposely forwarded in the interests of the collective.

In considering the role of individual action within the context of existing institutional constraints DiMaggio has argued that 'new institutions arise when organized actors with sufficient resources see in them an opportunity to realize interests that they value highly.'²⁷⁹ This reflects Eisenstadt's approach through the application of "agency, interests and power" to new institutional analysis in organizational research.²⁸⁰ In DiMaggio's view, institutional entrepreneurs perform a critical role in the adaptation of existing institutions or the formulation of new institutions, diverging from existing rules, routines and behaviours associated with

²⁷⁷ Peters, Institutional Theory in Political Science, 61.

²⁷⁸ Ibid. Riker's concept of a *heresthetician* builds upon the rational choice notion of an underlying disequilibrium of tastes that actively works against established equilibrium within political institutions. See also Kingdon's notion of "Policy Entrepreneurs" who further their own policy ends through the use of knowledge of the policy process. John Kingdon, *Agendas, Alternatives and Public Policies*, (Boston, 1984).

²⁷⁹ Paul DiMaggio, Interest and Agency, 14.

²⁸⁰ Garud, Hardy and Maguire, *Entrepreneurship as Embedded Agency*, 957; DiMaggio and Powell similarly cast the institutional entrepreneur as an individual agent capable of breaking from the "paradox of embedded agency"; See: Abrutyn, *Revisiting evolutionary institutionalism*, 261; Walter Powell and Paul DiMaggio, *The New Institutionalism in Organizational Analysis*, (Chicago, 1991).

overriding institutional constraints and supplanting them with the entrepreneurs own alternatives. This is connected to the actor's willingness to embrace alternative possibilities and demonstrating capacity to recognise the limitations of the existing structure. In effect, the entrepreneur can recognise existing structural deficiencies and identify alternative strategies, and is willing to 'deploy the resources at their disposal to create and empower institutions.'²⁸¹

An alternative approach

More recent approaches in organizational studies focused on entrepreneurs as individuals (or groups of individuals),²⁸² incorporate Fligstein's concept of the socially skilled actor.²⁸³ Similarly, in *evolutionary institutionalism*, the entrepreneur is conceived of as an actor who constructs "symbolic and normative frameworks" to achieve wider support for innovation.²⁸⁴ This emphasises another view of entrepreneurs that work within existing social networks in the pursuit of individual and collective goals. Within the context of this chapter and through the identification and application of key attributes associated with these approaches, there is potential to locate Deakin's legislative innovations within a broad conception of entrepreneurial activity forcing the adoption of new institutional forms. In essence, the following discussion considers Deakin's leadership in the creation of rural water supply institutions against three fundamental attributes: *agency*, the ability to pursue interest and conduct divergent change; *social skill*, the ability to "straddle significant social networks" and

²⁸¹ Tina Dacin, Jerry Goodstein and W Richard Scott, 'Institutional Theory and Institutional Change: Introduction to the Special Research Forum', *Academy of Management Journal*, Vol 45(1) (2002), 47.

²⁸² Battilana, Agency and Institutions, 657.

²⁸³ Neil Fligstein, 'Social Skill and Institutional Theory', *American Behavioural Scientist*, Vol 40(4) (1997), 397-405.

²⁸⁴ Abrutyn and Van Ness, *Agency in Sociocultural Evolution*, 54.

engage in "skilled social action",²⁸⁵ and; *interest-driven* actors that operate strategically in the perceived pursuit of *collective goals*.

Agency

The structure versus agency debate has often caused particular disruption for new institutional analysis in sociology. 'Privileging structure over agency leads to causally deterministic models wherein some features of the social world become reified and "structure" others, voiding agency and creativity from humans.²⁸⁶ Institutional entrepreneurs, in the first instance, must break free from this "paradox of embedded agency" through a demonstrated ability to conceive of "alternative possibilities" to existing institutional structures. That is, entrepreneurs must first recognise, then actively pursue innovation as a form of divergent change. In confronting the issue of legislating for irrigation, Deakin conceived of a level of State control well beyond anything previously considered by the parliament. Previous forays into rural water supply were tentative and generally viewed the role of the State as a facilitator of development. In contrast, Deakin asserted and exercised a far stronger role by the State over its water resources. For example, Deakin's conferral of water rights by administrative grant fundamentally shifted the principle governing the reservation of water easements by the state. Clark and Renard have specifically noted that the significance of this shift in principle can be found in the marginal notes that accompany section six of the Irrigation Act.²⁸⁷ In earlier Acts (such as section 54 of the Land Act 1869) the notes read "Water easements reserved upon purchased land", whereas the Irrigation Act reads "Water right reserved from land sold". The significance of the deviation reflected a clear principle shift with regard to water use and that it would no longer 'depend

²⁸⁵ Paul Pierson, *Politics in Time*, (Princeton, 2011), ProQuest E-book, 137.

²⁸⁶ Raghu, Hardy and Maguire, Entrepreneurship as Embedded Agency, 960-961.

²⁸⁷ Clark and Renard, *The law of allocation of water*, 178.

solely on the ownership of riparian land.²⁸⁸ In this regard, Deakin's conception of this approach resulted in the institutionalisation of an alternative practice²⁸⁹ that held fundamental implications for future rural water resources development, not only in Victoria but throughout each of the Australian jurisdictions.

Social skill

Fligstein has defined social skill as the ability to motivate 'cooperation in other actors by providing those actors with common meanings and identities in which actions can be undertaken and justified.'²⁹⁰ In effect, socially skilled actors "relate" to other actors in the field and actively promote collective interests. Battilana has argued that in this sense, an individuals' social position 'is a key variable to understanding how they are enabled to act as institutional entrepreneurs.'²⁹¹ An actors' "social position" is further reflective of the set of persons with whom they maintain direct relationships, and operates as a defining feature of the actor, influencing their perceptions and as a result, 'their likelihood to behave as institutional entrepreneurs.'²⁹² Looking to Deakin's role in advancing irrigated development there are distinct features of his activity that reflect these traits. As considered in part one of this chapter, Deakin's membership of the irrigationist movement with other prominent advocates including McColl, Quick and DeGaris was clearly instrumental in his early development as a legislator and a key motivating factor propelling him into the water supply ministry. Similarly, Deakin

²⁸⁸ Ibid.

²⁸⁹ Battilana, *Agency and Institutions*, 658. Battilana regards contributions to the institutionalisation of alternative practices are sufficient in the identification of institutional entrepreneurs.

²⁹⁰ Neil Fligstein, Social Skill, 398.

²⁹¹ Battilana, Agency and Institutions, 659; see also: Paul DiMaggio, Interest and Agency, 3-21.

²⁹² Battilana, *Agency and Institutions*, 659-660; see also: Silvia Dorado, 'Institutional Entrepreneurship, Partaking, and Convening', *Organizational Studies*, Vol 26(3) (2005), 397.

maintained important relationships with influential figures in the liberal reform movement (Syme in particular), and he arguably became the most significant "Liberal" figure of the time. The following excerpt from *A History of Bacchus Marsh and its Pioneers* offers an indication of Deakin's public status: 'Edmund Burke's stilted ornate periods only resulted in his becoming "the dinner bell of the House," but there was a rush to hear, when the word went round that "Deakin" – as was said of Macaulay – "was on his feet".²⁹³

A further aspect of the concept of social skill is reflected in an entrepreneurs' ability (according to Abrutyn and Van Ness) to 'construct symbolic and normative frameworks'²⁹⁴ as a component of their focus to resolve specific problems they have identified. This is considered to occur as a two stage process: First, the entrepreneurs' identification of "problems" stems from the identification/perception of "exigencies" or pressures that may be exogenous (drought "water famines", increasing centralisation of population), or endogenous (perceived policy "failures" such as land reform or other complications emerging from related domains – riparian rights). In this regard, the institutional entrepreneur's motivation to innovate may occur through the perception of "crisis",²⁹⁵ and once it has been labelled as such, entrepreneurs will begin to seek out innovations that fit the problems they have identified. Secondly, the entrepreneur must convince other actors/groups/persons that 'their innovations are better than existing alternatives.'²⁹⁶ Abrutyn and Van Ness have noted that this is often achieved through the process of "framing" as a means of attributing blame to existing structures and thereby

²⁹³ Williams, Bacchus Marsh and its Pioneers, 25.

²⁹⁴ Abrutyn and Van Ness, Agency in Sociocultural Evolution, 54.

²⁹⁵ Ibid, 57; other pressures may also present such as from other actors/competitors or in the integration of new members/constituencies.

²⁹⁶ Ibid, 57; see also: Colomy, Neofunctionalism and Neoinstitutionalism, 271.

increasing the appeal of the identified innovations.²⁹⁷ Deakin's second reading speech for his Irrigation Bill provides a practical example:

It may be all very well in England for every landowner to be entitled to a reasonable use of the water in any river or stream passing through his property...but, with our scanty water supply it is perfectly plain that, if the English riparian law prevails in Victoria, irrigation can hardly even be a "reasonable use," and we shall be *absolutely debarred* from all irrigation worthy of the name. *[Emphasis Added]*²⁹⁸

Collective interest – self-interest?

This attribute appears more readily as an extension of an entrepreneur's social skill and their ability to motivate other actors to accept their favoured innovations. Institutional entrepreneurs are considered as interest-driven actors that typically appear to pursue collective goals over self-interested ones. However, (as Colomy has previously noted) 'their advocacy of institutional change is impossible to separate from their own particular...interests,'²⁹⁹ and the pursuit of collective goals is particularly a reflection of strategic activity intended to push desired innovations over the line. Framing processes (as previously considered) thereby serve another function in attracting supporters to the entrepreneur's own "causes", and tend to reinforce the particular meanings associated with the cause to the other actors. Moreover, the institutional entrepreneur fundamentally "believes" that their solutions are the correct ones, and Abrutyn has noted that this further 'generates solidarity among members and draws new followers.'³⁰⁰ In this regard, institutional entrepreneurs: stay committed to institutional

²⁹⁷ Abrutyn and Van Ness, *Agency in Sociocultural Evolution*, 57; see also: David Snow and Sarah Soule, *A primer on social movements*, (New York, 2010), 51-52. Fligstein also considers the use of framing to be an effective form of strategic action for entrepreneurs: Fligstein, *Social skill*, 399.

²⁹⁸ Alfred Deakin, VPD (Assembly), June 24 1886, 440-441.

²⁹⁹ Colomy, Neofunctionalism and Neoinstitutionalism, 271-272.

³⁰⁰ Abrutyn and Van Ness, *Agency in Sociocultural Evolution*, 57.
innovations that later become the central philosophy behind institutional activity; devote their energies towards reconfiguring institutional space through normative and symbolic frameworks, and; innovations are reflective of a determined effort to 'articulate and legitimate their proposals for structural change...while simultaneously challenging and critiquing existing arrangements.'³⁰¹ These conceptions of *strategic power* and motivated *self-interest* offer an illuminating counterpoint to the altruistic *social good* aspects of Deakin's water policy.

Summary

The focus of this discussion has been to offer a means by which Deakin's legislative role could be located within a framework capable of contextualising his involvement in the creation of institutional forms associated with rural water supply. While the approaches discussed may not offer a definitive answer, they emphasise alternative motivations that further assist in the understanding of Deakin's legislative innovations. Pierson has argued that this understanding of entrepreneurship (as it relates to political actors) can be viewed in the following terms: 'Well-situated and creative actors may play a crucial role in framing reform proposals so as to motivate participants and fashion coalitions.'³⁰² In the context of this chapter this would appear to be an apt description of the role that Deakin performed. In many respects, Deakin's "social position" ideally placed him to engage in the sort of activity that produced new institutional forms relating to rural water supply and agricultural development. As other works have already alluded to (and as the following chapters will demonstrate), Deakin's innovations formed the basis for the future governance of rural water supply and, as a result, transformed the institutional landscape of water and land use in Victoria.

³⁰¹ Ibid, 55; Colomy, Neofunctionalism and Neoinstitutionalism, 271.

³⁰² Pierson, Politics in Time, 136.

Melbourne's Water Supply and the Growing 'Divide'

In contrast to the issues of rural water supply and irrigation, the problems of inadequate water supply in Melbourne (and its growing population) had been eclipsed by constantly increasing levels of urban pollution. By 1889 the city faced major problems of water quality which were particularly associated with the complete lack of reticulated sewerage. 'To the obvious stinks from noxious industries, open sewers and manure deposits, were added less perceptible but constantly present...emanations from the thousands of pans. The metropolis was incurably constipated and incapable of ridding itself of its own wastes.'³⁰³ Diphtheria, tuberculosis and typhoid were among the ever-present infections severely impacting on the city's population, with Melbourne often subject to its own "typhoid season".³⁰⁴ Melbourne's City Council had recognised that under-ground sewerage was the "sole sanitary requirement" of the city, but disagreements between the metropolitan municipalities and previous government inaction prevented any progress.³⁰⁵

As Deakin had actively promoted irrigated development through the *Irrigation Act* it might be assumed that he would also have played a leading role on issues of Melbourne's water supply, but he had little involvement in the debate and this was indicative of the shift in political focus to the proposed federation of the colonies. Duncan Gillies (reluctantly) took responsibility³⁰⁶ and ultimately brought the legislation that confronted the city's significant public health issues. However, the government's intended resolution of the issue – the "Melbourne and Metropolitan

³⁰³ Tony Dingle and Carolyn Rasmussen, *Vital Connections: Melbourne and its Board of Works 1891-1991*, (Ringwood, 1991), 38.

³⁰⁴ Powell, Garden State, 130.

³⁰⁵ 'Proposed metropolitan board of works', *Argus* (Melbourne), June 24 1890.

³⁰⁶ Dingle and Rasmussen, Vital Connections, 20.

Board of Works" Bill – would expose significant tensions between urban and rural members on the issue of water supply. Gillies' attempts to placate rural interests on what they regarded as a "just" distribution of the costs of previous works on the Yan Yean reservoir saw the alienation of the municipalities and urban members of parliament, and highlighted the unease that existed between the city and 'the bush' on the issue of water resources.

Duncan Gillies and metropolitan water supply

Duncan Gillies (1834-1903) was born outside of Glasgow, Scotland, the son of a market gardener, and had migrated to the Victorian goldfields near Ballarat in 1852.³⁰⁷ He pushed for miners' interests as a member of the miners' Court and Board, and in 1857 Gillies was elected to the Land Convention, then to the Legislative Assembly as the member for Ballarat West in 1861. Gillies was a conservative who tended to "repel rather than attract", and Lack has noted that he 'moved from electorate to electorate as his views became more conservative.³⁰⁸

For two decades, the colonial government and municipalities of Greater Melbourne had failed to produce effective arrangements for the governance of water supply, sewerage and drainage in the metropolitan area. However, escalating health concerns throughout the 1880s resulted in concerted calls for action on the matters of sanitation, metropolitan sewerage and water supply, in particular due to the rising rates of deaths from Typhoid.³⁰⁹ Capital expenditure on Melbourne's Yan Yean reservoir had been repaid in full by 1871 and a sizable revenue surplus was being directed straight into the Government's consolidated revenue. These details were of

³⁰⁷ Margot Beever, 'Gillies, Duncan (1834–1903)', Australian Dictionary of Biography, (Canberra, 1972), Retrieved: <u>http://adb.anu.edu.au/biography/gillies-duncan-3617/text5619</u>, December 14 2016.

³⁰⁸ John Lack, 'Dr Jekyll and Mr Hyde? – Service and Gillies: The grand coalition premiers 1883-1890,' in Paul Strangio and Brian Costar (eds), *The Victorian premiers 1856-2006* (Annandale, NSW, 2006), 74.

³⁰⁹ Dunstan, *Governing the Metropolis*, 272; between 1885 and 1889 Typhoid had caused the deaths of approximately 1700 people.

particular annoyance to the City Council, 'which was convinced that the surplus belonged to Melbourne, not the whole of Victoria.'³¹⁰ A conference on the issue was held in 1887 to consider the establishment of a board of works involving Melbourne's various municipalities who voted on and subsequently endorsed a proposed sewerage plan for the Parliament to consider.³¹¹

Gillies was not inclined to adopt the plan and instead deferred consideration of the issue through the appointment of the *Royal Commission into the Sanitary Condition of Melbourne*. The commission's reports culminated in the passage of a *Public Health Act* and "technocratic" administration by the Board of Public Health, which included three board members from the metropolitan municipalities and three from "provincial" Victoria.³¹² In addition, the commission proposed the formation of a metropolitan board of works (to be run by experts), broadly entrusted with authority over sewerage and water supply of the metropolis.³¹³ However, its proposals had met with exasperation from the Melbourne City Council and other municipalities who 'immediately urged the government to ignore the commission's recommendations and introduce the bill which the municipalities had drafted.'³¹⁴ The general resolve of Melbourne's municipalities kept sufficient public pressure on the issue and, as a result, Gillies was eventually forced into a compromise that ensured the eventual Bill would introduce a metropolitan board that would be controlled by the municipalities.

³¹⁰ Dingle and Rasmussen, Vital Connections, 20.

³¹¹ Dunstan, Governing the Metropolis, 274.

³¹² Powell, Garden State, 131.

³¹³ Victoria, Parliament, Sanitary Condition of Melbourne – Royal Commission to Inquire into and Report upon the Sanitary Condition of Melbourne – Final Report, Parliamentary Paper (no. 7), (Melbourne, 1890), 15.

³¹⁴ Dingle and Rasmussen, Vital Connections, 21.

Town and country - urban/rural divisions

Gillies was clear that the compromise achieved with the municipalities to ensure the Bill's introduction was additionally predicated on confining the future board's authority to 'the water supply of Melbourne...including the whole metropolitan area' and, 'the construction and management of sewerage in all its branches.'³¹⁵ Controversially, Gillies' initial Bill required the metropolitan board to purchase from the government all of Melbourne's water supply infrastructure including the Yan Yean Reservoir and Watts River scheme. This largely reflected the influence of rural members who felt that country districts should not be expected to extend charity (in the form of headworks) to the metropolitan municipalities.³¹⁶ The construction and management of metropolitan waterworks had been the responsibility of the Board of Land and Works from 1860 with the statutory arrangements clarified by the *Public Works Statute* and the *Waterworks Act* (both legislated in 1865).³¹⁷ As the works were initially financed by the colony as a whole they were regarded (particularly in the country districts) as "national works". The divide between rural and urban interests intermittently appeared in the assembly, and rural members would inevitably decry "town interests" who denied "just treatment" to the country districts.

If the metropolitan members considered that the Yan Yean waterworks were really a national property, belonging to the people of Victoria and not to Melbourne alone...they could not object to the Government asking for them what they were fairly worth, and thus doing justice between town and country.³¹⁸

³¹⁵ Duncan Gillies, VPD (Assembly), June 24 1890, 398.

³¹⁶ John Woods, *VPD* (Assembly), July 2 1890, 530.

³¹⁷ Powell offers a detailed "pre-history" of early metropolitan supplies including the formation of a *Commission of Sewers and Water Supply* in 1853, the construction of the Yan Yean reservoir, and the early difficulties faced in building and managing the metropolitan water supply. Powell, *Garden State*, 51-61.

³¹⁸ James Wheeler, *VPD* (Assembly), July 2 1890, 526-527.

Specific clauses in Gillies' Bill (which were largely included to satisfy disquieted country interests) required the metropolis to pay £800 000 for the existing works on the basis that Melbourne was to receive the "economic benefit" of the assets, although this was despite an almost identical amount having already been recouped from the water rates paid by metropolitan landowners. Aggrieved metropolitan members expressed their consternation at the idea of the debate descending into contest between the city and the bush.

This measure did not involve any question of town *versus* country. As a matter of fact...few of the country water supplies were sufficiently profitable to pay the interest on the loans borrowed for their construction in addition to the cost of maintenance and management, but no metropolitan member demurred, because it was a matter of necessity that the country districts should have water. For these reasons the question of town *versus* country should not come into consideration at all in dealing with this Bill.³¹⁹

Outside the parliament metropolitan councillors were insisting on what they felt were the "fundamental rights" of ratepayers to not be expected to pay again what had already been paid.³²⁰ With the government feeling the weight of public opinion, the measure was eventually dropped.

Melbourne's board of works

The *Melbourne and Metropolitan Board of Works Act* authorised the creation of a board of 39 members plus a chairman to represent the metropolitan divisions on the basis of 1890 property values. Municipalities would be represented by electing their own officials to the board, who would decide upon the financial and organisational aspects of the necessary works. The new

³¹⁹ Charles Smith, VPD (Assembly), July 2 1890, 532.

³²⁰ 'Metropolitan board of works', *Age* (Melbourne), July 2 1890, 5; 'The metropolitan board of works bill', *Argus* (Melbourne), July 17 1890, 6.

Melbourne and Metropolitan Board of Works (hereafter 'MMBW') was given full access to the revenue from the city's water supply and was empowered to borrow the necessary finance in order to commence sewer construction. In respect of Melbourne's water supply and catchments the MMBW was granted sole authority through a clause that was likely to have been approved by Deakin: '*All the bed soil and banks of the River Yarra Yarra and of all other public rivers creeks and watercourses within the metropolis...shall without any conveyance assignment or transfer be and become vested in the Board upon trust for the purposes respectively of supplying water to the inhabitants of the metropolis.'[Emphasis Added]³²¹*

According to Dingle and Rasmussen the formation of Melbourne's board of works was a compromise, 'based on what Gillies thought the municipalities wanted, what his Party would accept and what the [Parliament] – *and especially the country members* – would tolerate.' [*Emphasis Added*]³²² The Act separated Melbourne's catchments, supply network and governance arrangements from all other aspects of water supply within the colony and effectively split water governance in Victoria. Rural water was the responsibility of the Board of Land and Works, which incorporated water supply in regional centres, smaller towns, and water for irrigation. While metropolitan water would be governed by the MMBW which controlled water supply and sewerage in Greater Melbourne. It extended upon the vesting of property provision covering the water supplies of Melbourne and Geelong as originally legislated in the *Public Works Statute*,³²³ and although these were necessary measures to secure the city's future water supply, the physical separation of assets and the separation of

³²¹ Melbourne and Metropolitan Board of Works Act 1890 (Vic) s 60; Yarra Yarra was the historical name mistakenly given to the River at the time of John Batman's original "grant of land".

³²² Dingle and Rasmussen, Vital Connections, 22.

³²³ Public Works Statute 1865 (Vic) s 189.

governance arrangements would later come to exert a disproportionate influence over future water supply decisions in Victoria.

Summary

Gillies' efforts to satisfy the demands of rural and urban interests over the formation of the Board of Works legislation revealed the sway that rural interests exerted, but it also revealed a general attitude that accepted the incursion of rural interests into these debates. Despite the resolution of questions over metropolitan water rates and the repayment of government loans, the tensions exposed between rural and metropolitan interests were significant. Rural interests had arrived at the view that water supply as an issue held far greater significance to the bush, and the debate revealed the presence of an emerging urban/rural divide on water supply. Moreover, the legislation formalised the separation of Melbourne's water catchments and supply network from all other water supplies in the colony.

Conclusion

This chapter has demonstrated initial stages in the development of a comprehensive legislative structure for rural water supply in Victoria ultimately gave rise to far greater initiatives. Significant legislative innovations fundamentally altered the law as it pertained to water supply in rural Victoria and Greater Melbourne. The formation of the MMBW separated the governance of water resources into two distinct spheres, while the preceding debate had revealed the level of tensions between rural and urban interests. Deakin's contributions to the formation of water legislation reflected his distinct social liberal and agrarian influences, but also incorporated dominant objectives directed at increasing irrigated agricultural production

to further enhance broader aspects of "national" economic growth. Vesting the primary right to water in the Crown overcame the perceived threat of riparian rights and enabled the government to allocate water through licensing provisions for diversions and by "administrative grant". This effectively conferred limited water rights tied to the ownership of agricultural land. Moreover, the principle of *local responsibility* facilitated the construction of necessary headworks by the state while the trusts would be responsible for distributary works. Deakin fundamentally believed that the Act's primary objective, *irrigated development* would equally serve wider ambitions to further decentralise the population, deliver water security to farmer settlers and increase agricultural production. Deakin's legislative innovations were crucial to fostering this notion of irrigated development and effectively fashioned new institutional forms connected to the future governance of rural water supply. To this end, the extent and significance of the innovations suggest that Deakin may effectively be regarded as an institutional entrepreneur.

Chapter Three: Consolidation, Amendment, and Interstate Agreements

This chapter examines the era of amendment to Deakin's template of rural water supply legislation initiated during the 1880s (and the continuation of the establishment phase). Focus is given to the dominant issue of overcoming riparian rights to waterways across the state through the adaptation and reinforcement of the "crown rights" clauses. The significant investment of effort directed into this issue by Deakin, George Swinburne and Stuart Murray is indicative of the value that was attributed to the assertion of crown rights as the central driving force behind the fundamental objective of *irrigated development*. As Victorian agricultural development during this period was also severely impacted by the "federation drought", its influence combined with broader structural factors drove the desire to introduce corrective measures. Swinburne's central role in the passage of the amendments, as well as his own contributions to the amending Act (the secondary objective of economic return and the introduction of a centralised statutory authority) are also closely considered by this chapter. Initial focus is given to the final months of the Gillies/Deakin ministry and attempts by Deakin and Murray to correct the financial problems being encountered by the trusts, in addition to their effort towards an amending Bill to restate and bolster crown rights to water. This is followed by an examination of George Swinburne's entry into politics in Victoria, Premier William Irvine's reinvigoration of developmental liberal policy and his role in "grooming" Swinburne for a ministerial role, and Swinburne's "formative political moment" alongside Irvine and Deakin at a meeting to revive irrigated development. Specific attention is then given to the introduction of Swinburne's Water Act in 1905 and his role in the amendment of key aspects of the 1890 Act including crown rights, the rating of lands and centralised administration. The chapter also investigates the role of Deakin, Swinburne and Murray in federal water matters and the final section considers their individual and collective contributions towards an inter-state agreement over the waters of the River Murray.

		Water Act (1890)
	1890	Water Act (1890) Deakin and Murray attempt amendments to "Crown Rights" formula and extend deferment of irrigation rates
"Graduated rates" introduced in Rodney Irrigation Trust Completion of Goulburn Weir	1891	
	1892	
Select Committee of Investigation (Mildura Settlement)	1893	
Royal Commission on Water Supply (1894-1896) (Economic Losses)	1894	
	1895	
Mildura Royal Commission Formation of "First Mildura Irrigation Trust"	1896	Water Rights Act (1896) - (NSW)
	1897	
	1898	
	1899	Murray proposes amending "Riparian Rights" Bill
	1900	
Federation of Commonwealth of Australia	1901	
Corowa Conference and Inter-State Royal Commission on River Murray	1902	Water Rights Act (1902) - (NSW)
Deakin, Irvine and Swinburne address "ANA" meeting on future of irrigation in Victoria and	1903	
Irvine's policy of "national development"	1904	
Waranga Basin completed Formation of SRWSC	1905	Water Act (1905) - complete amendment of "crown rights" clauses and nationalisation of all Victorian watercourses
Swinburne develops the framework of an	1000	or an victorian watercourses
"Inter-State" Murray waters agreement	1906	
	1907	
	1908	Murray River Waters Bill
	1909	Murray River Waters Bill (No. 2)
	1910	
	1911	
Formation of Inter-State Commission	1912	
Swinburne Appointed to Inter-State Commission	1913	
	1914	River Murray Waters Agreement
NSW v Commonwealth "Wheat Case" Judicial powers of Inter-State Commission invalidated	1915	River Murray Waters Act (1915)
	1916	
Swinburne Resigns from Inter-State Commission	1917	
	1918	

Figure 3.1: Chapter 3 Timeline

In Pursuit of Amendment – Irrigation Rates and Riparian Rights

By early 1889 Deakin and the chief engineer for water supply, Stuart Murray initiated an amendment process that attempted to address financial problems being encountered by the irrigation and water supply trusts. In most trust districts the works were not entirely operative and the trusts were required to pay capital and interest regardless of the quantity of water they were receiving. As a result, many trusts had accumulated large debts even though, in most cases, landholders were yet to receive the full benefit of irrigation water supply. In addition, the water supply department had become increasingly concerned that section four of the Irrigation Act (which established the Crown's primary right to flowing water) had not adequately extinguished the potentially superior rights of riparian landholders. In recognition of both issues, Deakin and Murray started to produce amending measures that intended to stabilise the financial position of the trusts, and alternative riparian rights provisions that further strengthened the Crown's primary right to Victorian water resources.

Water rates and the 'differential rating'

As the majority of trusts were failing to meet their financial obligations throughout 1889 and 1890, Deakin had introduced the *Irrigation Act Amendment and Extension Bill* as an attempt to alleviate the situation.³²⁴ A core amendment of the Bill provided for a period of ten years by order of the Governor in Council, that the trusts would only pay for water they actually used. The measure extended upon executive powers contained in the Irrigation Act regarding the deferral of payment of rates.³²⁵ Deakin stated that 'until the farmers were able to make full use of the water that might be supplied to them they should not be required to bear the burden of

³²⁴ Alfred Deakin, VPD (Assembly), November 20 1889, 2448.

³²⁵ Irrigation Act 1886 (Vic) s 35(6).

the loans entered into on their account except to the extent of paying for the water they consumed.³²⁶ However, the Legislative Council had insisted that the deferred payment periods in the amending Act were restricted to five years and this was subsequently enacted.³²⁷ As the financial situation of the trusts worsened, Stuart Murray sent a memo to Deakin suggesting that the amendment to a five year period appeared insufficient (although he also noted that it was questionable whether the original ten year provision would have been successful in improving the financial circumstances of the trusts).

Murray also raised concerns regarding the "financial position and prospects" of the trusts. He considered that it was:

Of the first importance to the success of the policy of the government, to the progress of the trusts themselves, and to the best interests of the Country, that these bodies should be placed in a permanently sound and satisfactory footing; thus they should, on the one hand, begin to realize the full responsibilities of their position, and in the other, should not be saddled with crushing liabilities.³²⁸

Deakin had later commenced drafting additional amendments in an attempt to alleviate trust obligations including the reinstatement of ten year deferred payment periods and the reduction of the interest rate paid on deferred loans.³²⁹ The amendments did not ultimately achieve what was intended, and as noted previously, the trusts' failure to levy appropriate charges ultimately caused irrevocable damage to the system that Deakin had originally planned. However, it was

³²⁶ Alfred Deakin, VPD (Assembly), November 22 1889, 2562.

³²⁷ Irrigation Amendment Act 1889 (Vic) s 16.

³²⁸ Papers of Alfred Deakin, *Memo to Alfred Deakin from Stuart Murray* – 'Financial Position of the Irrigation and Water Supply Trusts', National Library of Australia, MS1540, Item 10/266-71, Page 5.

³²⁹ Papers of Alfred Deakin, *Water Act 1890 Bill (No.2)* – '*Memorandum for The Premier*', National Library of Australia, MS1540, Item 10/212-9, Page 5.

also the case that the poor financial circumstances of the irrigation trusts reflected the high overhead costs of initial developments and the low prospect of early returns. As these problems depended largely on the accessibility of water, they manifested disproportionately between the trusts. The possibility that these problems could emerge (and general concerns regarding the uniform rate) had previously motivated Deakin to include a "differential rating" system in his earlier Acts, with the intention that this type of rating would reflect the "actual benefit" that trust lands received by irrigation.

Under the *Water Conservation Act* (1881) waterworks trusts had been limited to levying a uniform rate across each district, and Deakin had intended through the amending *Water Conservation Bill* in 1883 to see the uniform rate replaced with his proposed differential rating system. At the time, Deakin noted that earlier experience with the uniform rate demonstrated that the 'arrangement does not work satisfactorily, particularly in a waterworks district which may have an area of several hundred miles,' he then continued, 'some portions of such a district needed a much smaller expenditure than other portions...and it is only reasonable that each locality should be rated according to the benefits it receives.'³³⁰ The proposed clause was ultimately defeated and the uniform rate was retained. Deakin later found more success with his *Irrigation Act* (1886), which empowered the Governor in Council to introduce graduated rates across divisions within a district and incorporated a scale by which a higher rate would be levied in trust districts that derived 'a proportionally greater benefit from the works;'³³¹ or alternatively, to "divide" districts and direct rates within these divisions to be levied "differentially" from "time to time".³³² However, the provisions remained little more than

³³⁰ Alfred Deakin, VPD (Assembly), October 10 1883, 1387.

³³¹ Irrigation Act 1886 (Vic) s 172.

³³² Irrigation Act 1886 (Vic) s 173.

alternatives to the uniform rate and they only appear to have been invoked in limited circumstances.³³³ Nonetheless, the recognition that some districts would inevitably use more water than others was clear and accompanied by an intention to see agricultural lands rated according to the benefit actually obtained from irrigation.

Extending 'crown rights' over watercourses

A considerable effort was also made by Deakin and Murray to adjust the preliminary conditions of the irrigation legislation as it pertained to riparian rights. The Secretary of water supply (Charles Langtree) in presenting the annual report to the Ministry, reinforced the urgency to the government of reforming the riparian rights clause.

It is strongly recommended that Parliament be asked to give early consideration to the whole subject of the riparian law of the colony, to define the limits and extent of the respective rights of individual landowners, and of the State as representing the people at large. It is understood that, at present, the riparian law of England, except in so far as it has been modified by local enactments, is the law of the colony. That it is utterly unsuited to our circumstances need not be matter for surprise, when there are considered the vast differences in physical conditions and in climate between Great Britain and this colony. Nothing short of the absolute supersession of this portion of the English common law, by a comprehensive enactment dealing with the whole subject, will meet the necessities of the case. Accrued rights may be fully conserved; but rights that were merely inchoate at the time of the passing of "The Irrigation Act 1886" should be finally and conclusively dealt with; and a way should be provided to ascertain and declare, once for all, what the accrued rights really are. Unless the State be invested with full power over all natural sources of water supply, the Irrigation and Water Conservation Acts cannot be satisfactorily

³³³ In one example in the larger irrigation district of Rodney, the district was divided into three divisions by regulation in February 1891 and a graduated rate across these divisions was introduced in April of the same year. Victoria, Parliament, Rodney Irrigation and Water Supply Trust. Regulation no.4, Parliamentary Paper (no.50), (Melbourne, Government Printer, 1891).

administered, nor will it be wise or prudent to invest money in some of the costly National works which have been asked for.³³⁴

Deakin and Murray considered that the original formula for asserting crown rights as proposed by Deakin in 1886 was a far more appropriate measure for limiting the assertion of individual riparian claims:

All water at any time in any river, stream, water-course, lake, lagoon, swamp, marsh whatsoever shall in every case be deemed to be the *property of the Crown until the contrary be proved by establishing any other right than that of the Crown to the property in such water*, and, save in the exercise of any legal right existing at the time of such diversion or appropriation, no person shall divert or appropriate any water from any river, stream, water-course, lake, lagoon, swamp, marsh whatsoever without the consent of the Governor in Council to such diversion or appropriation first obtained.[*Emphasis Added*]³³⁵

However, when that Bill had been brought into the parliament Deakin could not secure agreement to the clause which was regarded to be excessive, and the lesser alternative (that later became section four of the *Irrigation Act*)³³⁶ was eventually substituted. To remedy the situation, Deakin (with Murray's assistance) had drafted alternative provisions intended to fundamentally assert the State's right to all waters flowing within its boundaries. The first of these was principally the result of Murray's efforts and provided three main objects: 'To vest

³³⁴ Victoria, Parliament, Victorian Water Supply – Third Annual General Report, Parliamentary Paper (no.135), (Melbourne, Government Printer, 1889), 4. Usage of the term "inchoate" refers to the stage of development of riparian rights in the colony, and that, for the most part, they had still not achieved a status that directly threatened or usurped the assertion of the rights of the Crown.

³³⁵ *Victorian Parliamentary Debates* (Assembly – In Committee), September 21 1886, 1524-1525; see also: Clark and Renard, *The law of allocation of water*, 174.

³³⁶ *Irrigation Act 1886* (Vic) s 4. The right to the use of all water at any time in any river stream watercourse lake lagoon swamp or marsh shall for the purposes of this Act in every case be deemed to be vested in the Crown until the contrary be proved by establishing any other right than that of the Crown to the use of such water.

the alveus of all rivers whether tidal or non-tidal and of all natural streams and watercourses in the Crown – and this whether the rivers flow through lands heretofore and hereafter alienated from the Crown...to enact that the right to the use of all water in any river, stream, watercourse, lake, lagoon (other than artificial watercourses) swamp or marsh shall be deemed to be in and belong to the Crown,' and lastly 'to require the registration...of all the rights of riparian owners.'³³⁷ The usage of the term "alveus" was intended to extend rights throughout the beds or channels that all streams naturally flow through, and signalled the beginning of a shift in the drafting of crown "vesting" provisions that intended to extinguish riparian claims, including to the beds and banks of all watercourses. Moreover, the requirement to register the rights of riparian owners was another innovation that intended to lock-out the possibility of these claims.

These attempts at perfecting a "riparian rights extinguishment" formula continued throughout the final months of the government, and Deakin eventually put a proposal before Cabinet to amend the colony's water laws by extending the limits of crown entitlements to their theoretical limits.

The soil in the bed of all rivers whether non-tidal or tidal and of all natural streams and watercourses shall be deemed to be and the same is hereby declared to be vested in Her Majesty her heirs and successors and whether the said rivers streams and watercourses flow over through or by lands now or heretofore of the Crown or heretofore or hereafter alienated leased or otherwise disposed of by the Crown. [Emphasis Added]³³⁸

³³⁷ Papers of Alfred Deakin, *Bill to amend the Water Act 1890*, National Library of Australia, MS1540, Item 10/220-224, Page 2.

³³⁸ Papers of Alfred Deakin, *A Bill to amend the Law relating to the Law of Waters*, National Library of Australia, MS1540, Item 10/197-203, Page 2.

This provision may have succeeded, however, before it could be put before the Parliament the Gillies/Deakin ministry succumbed to the economic crisis and the collusion of many members of the Parliament in the questionable activities of land speculation throughout the colony. As a result, Deakin and Murray's amendments were never considered by the Parliament.

Summary

Deakin and Murray's efforts in attempting to ameliorate the earliest problems concerning the financial position of the irrigation and water supply trusts (in addition to addressing the water supply department's immediate apprehensions regarding the status of riparian rights in the colony), demonstrates the extent to which they regarded the system as a work in progress. Stuart Murray's memo to Deakin raised specific concerns about the ability of the trusts to meet their financial obligations during the developmental stages of new irrigation districts, when in many cases irrigation water was unable to be delivered to landholders in any sufficient quantity. Deakin subsequently pushed the enactment of amendments to the Irrigation Act (1886) that enabled the deferment of water rates and interest provisions to ensure that trust farmers were not paying for water they were unable to use. In effect, many of the problems experienced were a reflection of earlier failures to introduce a differential rating in irrigation and water supply districts according to the principal that water rates reflect the "actual benefit" obtained by irrigation – a system of rating that Deakin had urged the parliament to accept. In similar terms, Deakin and Murray's attempts to produce a legislative device capable of extinguishing riparian rights indicate that the continued advancement of the Crown rights formula was perceived to be critical to advancing the policy of irrigated development. It was strongly believed that the overall policy was dependent on the State exercising complete control over its sources of water supply, and as a result, these efforts at overcoming riparian rights came into heightened focus again in the years following federation.

George Swinburne and Rural Water Supply in the 'State' of Victoria

In contrast to Deakin, Swinburne was not known as a great orator or leader of the liberal movement, nor had he witnessed the fractious years that had preceded the relative political stability of the 1880s. Rather, he was a more cautious figure who mostly worked within the constraints of the transitional period in Victorian politics following federation. While Deakin's political ideas had developed in the shadow of Victorian radicalism under the influence of David Syme and Graham Berry and culminated in his membership of the "Grand Coalition" of the 1880s, Swinburne's were largely influenced by British statesman William Gladstone. A prominent figure in 19th century English politics, Gladstone is regarded as a unique liberal thinker largely due to the ambiguity of his version of "Liberalism".³³⁹ In so many ways, Deakin and Swinburne couldn't be more different (Deakin was a passionate, captivating political figure; Swinburne was considerably more reserved and restrained). The following section considers Swinburne's entry into the Victorian Legislative Assembly just as Deakin completed his transition to the new federal parliament. Swinburne's induction into Victorian "state" politics coincided with the premiership of William Irvine who 'was premier for less than two years but in that time had a remarkable impact on Victorian politics.³⁴⁰ Irvine would also come to play an important role in preparing Swinburne for his transition into a ministerial role in the subsequent government led by Thomas Bent. Swinburne's political "apprenticeship" during

³³⁹ David Bebbington, *The Mind of Gladstone: Religion, Homer, and Politics*, (New York, 2004), 268. Bebbington has offered the following appraisal of Gladstonian liberalism: 'On the one hand it showed signs of classical liberalism in the vein of the Manchester school. It was individualist, asserting human rights and the value of self-help, while aiming to limit the state through decreasing public expenditure. It was associated with free trade, political economy, and, at times, laissez-faire. On the other hand it appeared to be imbued with a species of conservatism, endorsing tradition against those who decried it. It was anti-egalitarian, upholding royalty and the peerage as matters of priority. The eulogies of freedom stirred Liberal audiences, and yet freedom was carefully balanced by order. There was celebration of progress, and yet progress was doubtful and contingent.'

³⁴⁰ John Rickard, "Iceberg" Irvine and the politics of anti-Labor', in Paul Strangio and Brian Costar (eds.), *The Victorian Premiers 1856 – 2006*, (Annandale, 2006), 119.

this period culminated in his participation, with Deakin, at a historically significant public meeting on irrigation that preceded a distinct period of legislative amendment regarding land settlement and rural water supply in the state.

Swinburne, liberalism and 'state' water politics

George Swinburne (1861 – 1928) was born at Paradise on the Tyne (a small village near Newcastle, England). The son of a draftsman and engineer, he was educated at the Royal Grammar School in Newcastle and later qualified as a gas and hydraulic engineer. He later became an active supporter of the Gladstonian liberal philosophy and was involved in the Liberal Association in St Pancras London.³⁴¹ While he didn't pursue candidacy personally, Swinburne maintained an active role in the English Liberal movement until he migrated to Australia. Swinburne arrived in Australia towards the end of 1886 at the request of his uncle John Coates who required assistance with his growing gas-lighting business.³⁴² Swinburne's brother William also arrived in 1887 and the three channelled their energies into establishing the Melbourne Hydraulic Power Company (hereafter 'MHPC').³⁴³ As Victoria's economic boom reached its highest point and the pace of development required businesses with high levels of technical expertise, the MHPC intended to supply hydraulic power to buildings in Melbourne and surrounding suburbs for the purpose of powering hydraulic lifts, presses and hydrants but could only do so with the authority of the Victorian Government. Entrusted with the responsibility for negotiating with parliamentary members, Swinburne worked towards securing the passage of the MHPC Bill through the Victorian Parliament,³⁴⁴ and in the

³⁴¹ Edward H Sugden and Frederic W Eggleston, *George Swinburne – A Biography*, (Sydney, 1931), 6.

³⁴² Ibid, 19-20.

³⁴³ Alison Patrick, 'Swinburne, George (1861-1928)', *Australian Dictionary of Biography*, (Canberra, 1990), Retrieved: <u>http://adb.anu.edu.au/biography/swinburne-george-8729/text15283</u>, (January 12 2013).

³⁴⁴ Sugden and Eggleston, *George Swinburne*, 23.

successful completion of negotiations he cultivated several longstanding relationships with influential colonial politicians. One of these was Thomas Bent who had developed a particular interest in Swinburne's work in the MHPC that dealt with gas-engineering. During the late 1880s and 1890s Swinburne further developed this arm of the business into the Colonial Gas Association.³⁴⁵ Ultimately these enterprises became the foundation of his ongoing business successes throughout the 1890s and eventually led to the pursuit of public office.



Figure 3.2: Photograph of George Swinburne – Source: State Library of Victoria³⁴⁶

³⁴⁵ Patrick, Swinburne.

³⁴⁶ Victoria, State Rivers and Water Supply Commission photographer, State Library of Victoria - Rural Water Corporation collection, Retrieved: <u>http://digital.slv.vic.gov.au/</u>, (December 16 2016).

Swinburne first entered municipal government as a councillor in the 1898 Hawthorn City Council election,³⁴⁷ his most significant achievement in this role was to focus community desire for electrical lighting towards a scheme that combined several municipalities and assigned franchise to a central provider.³⁴⁸ Such achievements drew the approval of the political elite and ultimately progressed Swinburne's political career from running (and losing) as a liberal/independent candidate for the legislative assembly seat of Hawthorn in the 1900 election, to being elected Mayor of Hawthorn in 1902. Ultimately, Swinburne found his way to state representation against the backdrop of the *Kyabram movement*³⁴⁹ when he was preselected by the Hawthorn branch of the *Citizens Reform League* as their lower house candidate. Swinburne won the contest comfortably and joined the Legislative Assembly as the member for Hawthorn,³⁵⁰ and quickly came to be a much valued and reliable supporter of William Irvine's government.

Swinburne, Irvine and 'national development'

William Hill Irvine (1858 – 1943) was born in Newry, County Down (now part of Northern Ireland).³⁵¹ He graduated in law at Trinity College, Dublin and subsequently migrated to Melbourne where he received his Master's in arts and law, eventually joining the Victorian Bar. In 1894 Irvine was elected to the Legislative Assembly for the rural seat of Lowan and

³⁴⁷ Sugden and Eggleston, *George Swinburne*, 65-68.

³⁴⁸ Ibid, 68-69.

³⁴⁹ The "Kyabram movement" was the result of a public meeting at the Kyabram Mechanic's Institute in November 1901 and signalled the beginning of coordinated agitation for parliamentary reform (including the number of parliamentary members), the retrenchment of public servants, and to generally reduce state expenditure. The formation of the Citizens' Reform League out of the origins of the Kyabram movement had a pronounced influence over Victorian politics in the years immediately after federation.

³⁵⁰ 'Hawthorn – Mr Swinburne elected', Age (Melbourne), October 2 1902, 5.

³⁵¹ John Rickard, "'Iceberg" Irvine and the politics of anti-Labor', in Paul Strangio and Brian Costar (eds.), *The Victorian Premiers 1856 – 2006*, (Annandale, 2006), 119.

quickly became known as a conservative with a "radical edge".³⁵² He ascended to the premiership in 1902 on the back of a successful motion of no confidence in Alexander Peacock's government. Irvine's ministry spent much of its period in office managing the complexities of the Kyabram movement, parliamentary and constitutional reform, and industrial strife with public servants and railway workers.³⁵³ Irvine played a prominent role in implementing a policy of "national development" and declared that the government was 'anxious to proceed as rapidly as possible with the development of irrigation.'³⁵⁴

Irvine was adamant that the significant write-down of irrigation trust liabilities that followed the 1896 royal commission had damaged the standing of irrigation policy in the eyes of electors.³⁵⁵ He toured Victoria's northern districts with Stuart Murray (among other government members and public servants) to see first-hand the effects of the federation drought. As Swinburne had become regarded as a 'leading authority on financial questions'³⁵⁶ (reflecting his business nous and economic credentials developed during the 1890s, and for having an advanced understanding of water supply matters), he was invited to join the tour. Swinburne had dedicated a considerable amount of time to the study of Deakin's writings on irrigation policy, and his earliest speech on the subject closely followed Deakin's contributions and continued the narrative of providing a greater opportunity to all through improving Victoria's irrigated development. His address on "water conservation" delivered to the Hawthorn branch of the Australian Natives' Association (hereafter 'ANA') specifically

³⁵² Ibid, 120.

³⁵³ Ibid, 121.

³⁵⁴ 'The Murray waters question', Age (Melbourne), August 5 1903, 4.

³⁵⁵ 'Northern irrigation trusts', Argus (Melbourne), August 1 1903, 15.

³⁵⁶ 'The Bent Ministry', Age (Melbourne), February 16 1904, 6.

focused on what Swinburne believed was the necessity to divide the large estates and encourage increased immigration.³⁵⁷ 'He advocated the Indian system of taxing the owner of land for the enhanced value of his property, and implied his approval of the American system of limiting the riparian rights of a land-owner on a stream to the use of only such water as he could beneficially employ.'³⁵⁸ Swinburne's involvement in the tour of the northern districts further solidified his perception of how state-sponsored irrigation could best be advanced. In effect, Irvine's choice to include Swinburne on the tour appeared to be a case of "grooming" him for a ministerial role in a subsequent government.

Irvine believed that 'the people who were to be benefited by the water should assume a considerable portion of the obligation attaching to it...they must be prepared to deal with the matter as a business proposition,'³⁵⁹ and he also maintained the view that any increased expenditure on head works necessitated the supervision of a much larger centralised independent statutory body. The concept of empowering large centralised public bodies with business-like attributes, financial independence and greater accountability³⁶⁰ was a central aspect of Irvine's "national development" and came to be considered as a component of what Eggleston termed "State Socialism".³⁶¹ Eggleston and Hancock 'gave definitive expression to a long-established tradition that emphasised state action and "colonial socialism" in early Australia.'³⁶² Highlighting the significant level of government intervention (particularly in

³⁵⁷ 'Water conservation – lecture by Mr. Swinburne', Argus (Melbourne), June 16 1903, 8.

³⁵⁸ Ibid.

³⁵⁹ 'Northern irrigation trusts', Argus (Melbourne), August 1 1903, 15.

³⁶⁰ Rickard, "Iceberg" Irvine, 123-24.

³⁶¹ Frederic Eggleston, State Socialism in Victoria, (London, 1932), 34.

³⁶² Ann Capling, Brian Galligan, Beyond the Protective State – The political economy of Australia's manufacturing industry policy, (Melbourne, 1992), 24.

Victoria) they characterised the Australian policy environment as one with a deep-seated cultural disposition in favour of comprehensive state action. Eggleston suggested that Irvine's policy of national development represented the first steps towards 'the maturity of state socialism in Victoria.'³⁶³ He emphasised the dynamism of the political environment facing Irvine in particular, which included the federation of the colonies and the severity of the "federation drought". In his view these circumstances culminated in a policy that allowed the state to 'resume and extend its activities of development', while reforming its methods and ensuring the delegation of 'strictly limited functions through carefully constructed incorporated authorities removed from political influence.'³⁶⁴ Hancock similarly emphasised Victoria's experiences in the last two decades of the nineteenth century proved that no body less powerful than the State could secure a reasonable return for the huge expense incurred in storing and circulating water.'³⁶⁵

New beginnings in 'irrigated development' – the meeting of Deakin, Irvine and Swinburne

With Irvine's guidance, Swinburne had started to focus on what he saw as barriers to unlocking the "full potential" of irrigation, and his lectures 'described the water problem in Victoria, the catchment areas, the quantities available, and the continuous waste going on through the absence of storages.³⁶⁶ His understanding of the legal, economic and engineering constraints, coupled with a specific appreciation of Victoria's water policy history made Swinburne the ideal candidate for a ministerial role in water supply. As an indication of his rising status,

³⁶³ Eggleston, *State Socialism*, 32.

³⁶⁴ Ibid, 34.

³⁶⁵ W K Hancock, Australia, (Melbourne, 1966), 108.

³⁶⁶ Sugden and Eggleston, *George Swinburne*, 113.

Swinburne again spoke at a large public meeting on irrigation in September 1903, organised by the Australian Natives' Association (hereafter 'ANA') at the 'Athenaeum Theatre' in Melbourne. The meeting was also attended by Irvine (who was preparing his exit as premier and was using the meeting as an opportunity to advance his government's irrigation policy), but more notably, it was attended by Alfred Deakin. Deakin's active involvement in a meeting wholly focused on irrigation in Victoria was particularly revealing given it had taken place only five days after he had become prime minister. To this end, the meeting was more than a significant event in relation to irrigated development in Victoria. Rather, it was a formative political moment that signalled Swinburne's legitimacy as a suitably qualified replacement to carry on "the cause" of irrigation.

Deakin's speech included a characteristic appraisal of the social virtue of settlers living in irrigated communities. According to his view, 'the great charm of irrigation was the spectacle of these isolated hard toiling people drawn together into little communities, with means of social intercourse, literature, art, churches and all other means of elevation and culture.'³⁶⁷ It was his belief that these ideals had been in view in 1886, and that they should continue to be in view. He continued, 'the essential factor of the future and one which should be put into operation without delay was the repurchase and subdivision of land for closer settlement.'³⁶⁸ Deakin regarded that the actions of past governments were best characterised by their "extreme liberality" and as a result, very few adjustments to the state's water law were needed, but that the state would benefit from alterations "in regard to rating". He concluded by emphasising again, what he regarded was the fundamental objective of *irrigated development*. The country was 'magnificently rich in natural opportunities – magnificently rich, as all the world knew, in

³⁶⁷ 'The A.N.A. and irrigation – public meeting at the Athenaeum', *Age* (Melbourne), September 29 1903, 6.
³⁶⁸ Ibid.

minerals, stock and general agricultural produce, and, above all, superbly rich in its opportunities for the development of that agriculture which depended, not upon an irregular water supply from the clouds, but upon the regular, deliberate, intentional and measured supply of just that quantity of water, applied just at the right time, to bring forth the fruits and crops to the highest perfection.³⁶⁹ Ultimately, what was patently clear, was Deakin's continued belief that an opportunity existed to double or triple the population of the state "by means of irrigation".³⁷⁰

Irvine similarly extolled irrigation's "enormous social advantages" and emphasised that if the policy was to operate as envisaged, it was essential that the financial burden was fairly distributed between the general taxpayer and the landowners who would directly benefit from the irrigation.³⁷¹ He had urged the ANA to support the continuation of the existing policy to ensure the ongoing development of irrigation in Victoria. Swinburne concluded the meeting with a focus on examples of American "success" where irrigated acreage had increased by 75 per cent over ten years, and further arid land was to be reclaimed under "federal supervision" when Deakin interjected that it was 'the first time the Federal Government has undertaken such a thing.'³⁷² Swinburne announced that the economic question of irrigation would remain unresolved as long as the existing system of irrigation trusts was allowed to continue, and reaffirmed his support for Irvine's policy of placing the "whole administration" of irrigation into the 'hands of independent commissioners.'³⁷³ Five months later, the decline of Irvine's

³⁶⁹ Ibid.

³⁷⁰ Ibid.

³⁷¹ Ibid.

³⁷² 'Irrigation – meeting at the Athenaeum', Argus (Melbourne), September 29 1903, 7.

³⁷³ 'The A.N.A. and irrigation – public meeting at the Athenaeum', Age (Melbourne), September 29 1903, 6.

personal health and his eventual resignation³⁷⁴ saw Thomas Bent form a "reform ministry" that comprised several debutants, including Swinburne who was appointed to the recreated role of Minister for Water Supply.

Summary

The meeting at the Athenaeum represented a concerted effort towards reviving the "irrigation question" in order that it could be resolved in a fashion that could be seen to produce a greater economic benefit to the state. In this regard, its revival accorded with Irvine's policy of "national development" which advocated utilising the powers of the state for the purposes of comprehensive state intervention, and the inducement of further development. This view further advocated that the developmental activities of the state needed to be appropriately governed by large, independent statutory authorities possessing "business-like attributes, financial independence and greater accountability". Irvine played a determinative role in the eventual promotion of Swinburne into the ministerial role of water supply, and Swinburne's studies of irrigation and comprehensive understanding of the subject placed him in a position to attempt the reinvigoration of irrigated development. In this cause alone, the parliament would later come to find that Swinburne was, notably, a man of actions rather than words and preferred to see the embodiment of his principles and ideals incorporated into policy.

³⁷⁴ J. M. Bennett and Ann G. Smith, 'Irvine, Sir William Hill (1858–1943)', *Australian Dictionary of Biography*, (Canberra, 1983) Retrieved: <u>http://adb.anu.edu.au/biography/irvine-sir-william-hill-6801/text11765</u>, (July 11 2013).

Swinburne's 'Water Act'

Swinburne's introduction of the Water Acts Consolidation and Amendment Bill reaffirmed that the intentions of the Bent government mirrored the "irrigation policy" as Irvine, Deakin and Swinburne had presented it at the ANA meeting in September 1903. Given that he was tasked with the revival of Victorian irrigated development in the shadow of the failures of the past, it almost appeared fortuitous that Swinburne should be granted the opportunity by the unashamed developmentalist "Tommy" Bent. Thomas Bent (1838 - 1909) was the son of a convict (James Bent) who had been transported to New South Wales in 1833.³⁷⁵ After leaving school at 13, Tommy worked with his father as a contractor and market gardener – and for a short time, took up and worked his own land - before taking on the role of "rate-collector" in the Melbourne suburb of Brighton.³⁷⁶ He was elected to municipal office in Moorabbin (1863) and to the Legislative Assembly (for the first time) as member for Brighton in 1871. In his day, Bent was probably most known for the development of railways which benefited his own properties while he was minister for railways in the O'Loghlen government. Bate has noted that Bent, 'like his land-developer contemporaries' was adamant 'that his economic activities brought general prosperity, just as modern day economic rationalists argue a trickle-down effect from the wealthy to the poor.³⁷⁷ Bent was loathed and admired in equal measure, and to this end, his premiership undoubtedly benefited from ministers like Swinburne, who relentlessly toiled to see measures such as the Water Bill get "across the line".

³⁷⁵ Weston Bate, 'Tommy Bent "a man", in Paul Strangio and Brian Costar (eds.), *The Victorian Premiers 1856* – 2006, (Annandale, 2006), 127-128.

³⁷⁶ Weston Bate, 'Bent, Sir Thomas (1838–1909)', Australian Dictionary of Biography, (Canberra, 1969) Retrieved: <u>http://adb.anu.edu.au/biography/bent-sir-thomas-2978/text4343</u>, (July 11 2013).

³⁷⁷ Bate, Tommy Bent, 128.

Swinburne's Water Bill intended to attempt three distinct amendments of the 1890 Act: the reassertion of the Crown's right to water (and its extension to the "beds and banks" of watercourses); the imposition of a secondary legislative objective (to complement the primary objective of irrigated development) that intended to see an economic return to the state; and, the creation of an independent statutory authority to administer rural water supply. As an amending Act, it was largely the product of Swinburne's main influences from his first years in the assembly: Irvine, Deakin and Murray.



Figure 3.3: "Tommy and Co." – Victoria 'I've just called for a large and continuous supply of Prosperity' – Premier Bent 'I congratulate you Madam you've come to the right shop at last' Source: *Punch* – 10 March 1904.³⁷⁸

³⁷⁸ 'Tommy and Co.', *Punch* (Melbourne), March 10 1904, 19, Retrieved: <u>http://nla.gov.au/nla.news-article174647939</u>, (December 20 2016).

Crown rights – 'beds and banks'

Swinburne's Bill foremost intended to assert the rights of the crown pertaining to all of the flowing waters of the state. Swinburne made it clear 'that the changes embodied in this Bill with reference to riparian rights are recognised by statute, by code, and by fundamental law in every European country which has undertaken irrigation.'³⁷⁹ In particular, he referred to countries in continental Europe (such as Spain, Italy and France), where water laws reflected Roman civil law concepts of "common goods". Quoting William Hammond Hall (State Engineer of California), Swinburne stated that 'under the Spanish law there can be no such thing as a private stream flowing from one property to another, and so on through others, nor even flowing on the boundary line between two properties. The bed of such stream may belong to the owners of the bank lands, but its waters and the stream, as a whole, are public, and the riparian proprietors have no right of control over them.'³⁸⁰

Swinburne's amendments followed a distinct line of precedent from the earlier draft reforms considered during the last months of the Gillies/Deakin ministry and highlighted the extent of Stuart Murray's influence, particularly his attempts to produce a measure capable of extinguishing riparian rights. This was an issue that had troubled the government throughout the 1890s, and this is reflected in Deakin's personal papers by the presence of another draft measure (again produced by Murray) dated 28 March 1899.³⁸¹ Murray was so intent on the principle of extending crown rights to the beds and banks of watercourses that waterworks engineer and administrator, Alfred Stephen Kenyon, later described it as Murray's "pet

³⁷⁹ George Swinburne, VPD Assembly, September 7 1904, 1420.

³⁸⁰ Ibid; Deakin consistently referred to Hall in his speeches on irrigation (particularly in bringing the 1886 Act) and this connection is the best indication that Swinburne likely consulted with Deakin on the new measure.

³⁸¹ Papers of Alfred Deakin, *Draft Bill To declare and amend the Law relating to Riparian Rights*, National Library of Australia, MS1540, Item 10/204-206, Page 1.

clause".³⁸² Moreover, the presence of the draft in Deakin's papers suggests that he also maintained an equally active interest in Victorian rural water supply matters, particularly with regard to the riparian rights issue. Ultimately, it was on Murray's advice that Swinburne introduced riparian rights provisions that were more robust (as Murray had intended) and, in addition, closely followed the example of clauses found in the water rights legislation of New South Wales.

The New South Wales "*Water Rights*" Acts of 1896 and 1902 unambiguously asserted crown rights to the use, flow and control of waterways. The pertinence of these acts to the Victorian government related to their ability to subject crown rights to a clear set of restrictions which encompassed previously conferred water rights and entitlements, the rights of riparian land holders, and the rights of holders of licences.³⁸³ These provisions were considered to offer a clearer path for Australian governments to embark on agricultural development of a suitably large scale. In the Victorian parliament, the significance of the New South Wales legislation to Victorian legislative reform was obvious. Swinburne stated to the assembly that the 1902 *Interstate Royal Commission on the River Murray* recommended 'that inasmuch as conditions in Australia are such that the common law doctrine of riparian rights is unsuitable, steps should be taken to legislate on the lines of the Water Rights Act of New South Wales.'³⁸⁴ The references to these provisions are also indicative of Murray's influence as he had co-chaired the inter-state royal commission as the Victorian representative and was the report's main author.

³⁸² A S Kenyon, 'Stuart Murray and Irrigation in Victoria', *The Victorian Historical Magazine*, Vol 10 (no. 39) (1925), 120.

³⁸³ Water Rights Act 1896 (NSW) s 1(II); Water Rights Act 1902 (NSW) s 4(2).

³⁸⁴ George Swinburne, VPD (Assembly), September 7 1904, 1420.

Swinburne's Bill was largely a product of Murray and Deakin's influence and reinforced the policy trajectory that had commenced with Deakin two decades earlier. The central point of concern for legislators throughout this period was the constant belief in the unsuitability of the common law riparian doctrine to far less reliable Australian waterways, and Swinburne's second reading speech maintained this view: 'There is no doubt that the laws of wet and foggy countries will not apply to a State where agriculture is impossible throughout a large part of its area without irrigation.'³⁸⁵ Section four of Swinburne's *Water Act* ultimately declared:

The right to the use and flow and to the control of the water at any time in any river creek stream or water-course and in any lake lagoon swamp or marsh shall subject only to the restrictions hereinafter provided and until appropriated under the sanction of this Act or of some existing or future Act of Parliament vest in the Crown. [Emphasis Added]³⁸⁶

Section five incorporated Murray's "beds and banks" clause:

Where any river creek stream or water course or any lake forms the boundary or part of the boundary of an allotment of land heretofore alienated by the Crown *the bed and banks thereof shall be deemed to have remained the property of the Crown* and not to have passed with the land so alienated.[*Emphasis Added*]³⁸⁷

The crown rights amendments caused the greatest concern to both the assembly and the council (specifically the usage of the term "banks" and whether its usage extended to the alluvial flats alongside rivers that typically became inundated in times of flood). As a result, Swinburne was forced to spend a great deal more time in clarifying these measures, although Sugden and

³⁸⁵ Ibid.

³⁸⁶ Water Act 1905 (Vic) s 4.

³⁸⁷ Water Act 1905 (Vic) s 5.

Eggleston noted that his expository skills either convinced or silenced even the most strident opponents.³⁸⁸ Swinburne found further success with a graphic representation of the Bill's intended effects by producing a large map that hung on the wall of the chamber while he described the practical significance of the amendments. The Argus newspaper later commented that 'no Minister in charge of a huge bill was better up in his case than the Minister of Water Supply. He knows apparently every clause and every line of the measure...before an objection or a question is more than half out he is answering it from his seat.³⁸⁹ However, the council. in contrast, was not convinced of the Bill's merits (or by the late stage of the parliamentary session) and it was subsequently allowed to lapse. As a result, Swinburne was forced to resubmit it to the assembly the following year. When the Bill reached the council the second time, a special resolution was passed which invited Swinburne to address the council directly.³⁹⁰ It was the first time a member of the assembly had been invited to address the council (a result of reforms to the state constitution in 1903).³⁹¹ As he had done in the assembly, Swinburne took to the council his enthusiasm and knowledge of the Bill, and explained each measure as it was called into question. In the end thanks to Swinburne's commitment and focus, the Bill passed the council with few amendments.

Swinburne's *Water Act* effectively nationalised all of the waterways within the state, and as intended, incorporated similar restrictions to those in the *Water Rights Act* (1902)³⁹² from New South Wales. Swinburne also emphasised the connections that existed between his Act and the

³⁸⁸ Sugden and Eggleston, George Swinburne, 144-156.

³⁸⁹ 'Among the state members', Argus (Melbourne), July 22 1905, 4.

³⁹⁰ James Balfour, VPD (Council), August 22 1905, 1084-1085.

³⁹¹ Constitution Act 1903 (Vic) s 9.

³⁹² Water Rights Act 1902 (NSW) s 4 (2).

objectives of closer settlement legislation passed the previous year.³⁹³ In particular, the *Closer Settlement Act* (1904)³⁹⁴ introduced measures that provided for the compulsory acquisition of nominated estates where other methods could not secure their procurement. This enabled the government to obtain large freeholds that could be subdivided and established as conditional purchase leaseholds. Swinburne's Act and the closer settlement legislation were complementary and intended to advance the principal legislative objective of *irrigated development* through further developing the connection between agricultural land and the irrigators' *water right*, (an individual right attached to agricultural land and assigned by the state). It embodied one of the central recommendations from Deakin's Royal Commission on Water Supply. As Deakin had noted then, it was a 'matter of public policy...that the land and water be joined never to be cut asunder.'³⁹⁵

'Economic return', the compulsory water right, and the differential rating

While Swinburne and Murray both considered that perfecting the crown rights formula was the central focus of the new Water Act, Swinburne also believed that it was essential that a secondary objective be included to generate a "direct economic return" to the State through the appropriate rating of "all lands" that received a benefit from irrigation. A previous speech to his Hawthorn constituents had established that Swinburne considered this to be a fundamental principle of state-sponsored irrigation. 'Not only should those who use the water be taxed, but every area or allotment to which the water was available or in contiguity should be rated.'³⁹⁶ Ongoing tensions between the irrigators, the trusts and the government were no more apparent

³⁹³ George Swinburne, VPD (Assembly), September 7 1904, 1429.

³⁹⁴ Closer Settlement Act 1904 (Vic).

³⁹⁵ Deakin, Irrigation in Western America, 46.

³⁹⁶ Sugden and Eggleston, *George Swinburne*, 114.

than on this issue (largely as the trusts and irrigators believed that they should only be expected to cover the costs of the actual volume of water supplied to them). However, Swinburne considered that the differential rating (in a similar form to that originally envisaged by Deakin), should apply as a charge on the land 'proportionate to the increase of the value of the land which the water gives to it. In many parts of the area to which it is proposed to take the water, it will be found that the great proportion of the increase in the value of the land will have been given to it by the water.'³⁹⁷ In the first instance, the Bill enabled a uniform rate to be charged over "the whole area" of a district. Swinburne believed that this was a necessary starting point for the new system, and it was in keeping with the earlier legislation. However, the Bill also gave the future power to classify lands according to their "nature for irrigation", and Swinburne argued that this measure reflected that 'some lands are better suited for irrigation than others, and it is intended that all these lands shall be properly classified, and rated according to their suitability for irrigation.'³⁹⁸

Shortly after first introducing the Bill in 1904 Swinburne attended a conference of the *Waterworks and Irrigation Trusts Association* and reiterated that the rate would operate as a basic remuneration to the state for the delivery of a "definite benefit" to the land.³⁹⁹ He was well aware that the irrigation and water supply trusts, and the landholders in the irrigated regions had to be agreeable to the amendments if they were to succeed. One of the largest barriers to irrigated development under the previous legislation was the unfamiliarity of landholders with intensive culture and their inability to take advantage of the water available. In most cases, farmers had treated the system as a supplementary supply whenever adequate

³⁹⁷ George Swinburne, VPD (Assembly), September 7 1904, 1424.

³⁹⁸ Ibid.

³⁹⁹ 'The water bill – conference of trusts', *Argus* (Melbourne), September 22 1904, 7.
rainfall failed to eventuate, and this resulted in a high variability of revenue to the state. Swinburne believed that imposing the differential rating according to land value and the corresponding charge would encourage usage of the land in line with the primary objective of irrigated development and additionally meet the secondary objective of direct economic return. In this respect Swinburne believed that rating the land would be the first step in getting the system to begin operating on a sound economic basis. 'There shall be a certainty that the land which was intended to be irrigated shall be irrigated...It is the only way that will give any certainty to the scheme.'⁴⁰⁰ Moreover, the legislation ensured that the differential rating would vary according to the proximity of agricultural lands to an irrigation channel, and that the rating would apply to the unimproved value of the land with the water brought to it.

Swinburne also toured the irrigated areas in order to promote these amendments and alleviate community unrest regarding the economic aspects of the Bill. He addressed town meetings, conferences of the various shire councils, irrigation trusts and other public meetings, and – no matter where he was, Rochester or Kerang, Murtoa or Ararat – above every other measure in the Bill, the questions from those most affected by its contents prodded Swinburne on the proposed rating of irrigated lands.⁴⁰¹ Sugden and Eggleston note that Swinburne had discovered while the parliament '*was interested almost entirely in riparian rights...the people were interested almost solely in irrigation charges.*' [*Emphasis Added*]⁴⁰²

⁴⁰⁰ George Swinburne, VPD (Assembly), September 7 1904, 1424.

⁴⁰¹ 'The water bill – deputation to Mr. Swinburne', *Argus* (Melbourne), September 23 1904, 6; 'Water conference – speech by the Minister', *Age* (Melbourne), May 27 1905, 9.

⁴⁰² Sugden and Eggleston, *George Swinburne*, 151-152.

Swinburne's ability to "sell" the Bill to all interests – in the parliament and among the irrigators - allowed the provisions concerning irrigation supply charges and the differential rating to pass both houses relatively intact. Sections 50, 52 and 57 established the "apportionment" of water to irrigation and water supply districts "by assignment",⁴⁰³ which was in itself a significant extension on the basic framework of irrigation supply to agricultural land incorporated in Deakin's previous system of irrigation by "administrative grant". In particular, the effect of section 61 of the Act was to introduce a system of "compulsory water rights" through the apportionment of pro rata (according to area) water rights to all lands administered by the state, which further provided that 'the occupiers or owners of all lands to which are apportioned such water rights shall be liable to an annual charge in respect of the supply of water for the irrigation of such lands as hereinafter provided.⁴⁰⁴ Section 65 of the Act incorporated a charge equivalent to twenty per cent of the net annual value of irrigated lands and Division 3 of the Act established the system of rating the applicable lands including the application of charges and arrears payments.⁴⁰⁵ The Act further provided for the sale of additional water "by agreement" and authorised that a district's "water right" could be varied as necessary in order to ensure that 'those who are using the water...use the water to the very best advantage, and get the very greatest duty out of it.⁴⁰⁶ This system of ratings and charges (as devised by Swinburne) while secondary to the central objective of irrigated development was still seen by Swinburne as a critical inclusion to advance the policy of the State. In addition, returning a modest financial sum to the state satisfied the desire to maintain a check on the developmental aspects of policy, and (it was believed) would avoid future economic losses.

⁴⁰³ Water Act 1905 (Vic) ss 50, 52 and 57.

⁴⁰⁴ Water Act 1905 (Vic) s 61.

⁴⁰⁵ Water Act 1905 (Vic) s 65; Division 3 ss 307-345.

⁴⁰⁶ George Swinburne, VPD (Assembly), September 7 1904, 1424-1425.

Centralised administration – the 'State Rivers and Water Supply Commission'

Consistent with William Irvine's commitment to centralised and "independent" administration, and empowered to oversee the stated objectives of the Act, Swinburne provided for the creation of the State Rivers and Water Supply Commission (hereafter 'SRWSC'). This statutory authority would be overseen by three commissioners (one of which as commission chair) appointed by the Governor in Council,⁴⁰⁷ and was granted broad-ranging powers over Victorian rural land and water resources. Essentially, its fundamental purpose was to 'overcome the difficult realities of farming with a variable supply of water.⁴⁰⁸ The establishment of the SRWSC as an authority similar in nature to Melbourne's "Board of Works" enabled for the centralisation of administration over the state's rural water supply. From the government's perspective, the SRWSC eliminated the problems connected to the system of irrigation trusts and placed the control and administration of water supply firmly in the hands of a government instrumentality. As such, 'all State works vested in the Commission, and any further Trusts which might be created and supplied from such works, were to be under the Commission's control.⁴⁰⁹ All existing irrigation and water supply trusts became districts under the Act. Sections 25-27 restricted the Board of Land and Works, and the Department of Water Supply to the completion of existing works only, at which point the works and the lands that they were constructed on would become vested in the SRWSC.⁴¹⁰ Moreover, the SRWSC could only declare new "districts" following the completion of the necessary headworks and distributary works.

⁴⁰⁷ Water Act 1905 (Vic) s 28.

⁴⁰⁸ Brent Collett, 'Changing rural water management: social and historical perspectives on the introduction of regional irrigation technologies', (PhD diss., University of Melbourne, 2010), 69.

⁴⁰⁹ Clark and Renard, *The Law of Allocation of Water*, 185.

⁴¹⁰ Water Act 1905 (Vic) ss 25-27.

The SRWSC was not given authority over the First Mildura Irrigation Trust which continued as a semi-autonomous body with its own elected commissioners independent of the SRWSC and consistent with the provisions of the Mildura Irrigation Trusts Act. Moreover, as Sugden and Eggleston note, 'the scheme for Melbourne was completely separated from the work of the Commission, and the supply of cities like Geelong, Bendigo and Ballarat was dealt with in special parts of the Act and placed under the authority of special local bodies. Water supply for smaller towns was sometimes devolved on local bodies and sometimes administered by the Commission.⁴¹¹ All major facets of rural water supply administration were however, under the control of the newly created authority, and in this regard, the powers of the SRWSC were extensive (it had full control of the irrigation and water supply districts, could carry out surveys, declare easements, gauge waterways, enter contracts and conduct improvements, extensions and substitutions of existing waterways). The essential reason for creating the SRWSC according to Swinburne was out of an absolute necessity to manage water administration in a business-like manner wholly independent of political interference, and further 'to maintain a continuity of policy through the whole area.'412 To this end, Swinburne's SRWSC design conformed to the model incorporated authority that Irvine had previously envisaged.

The SRWSC was also expected to perform additional functions concerning the collection of statistical data, and an advisory role with regard to the irrigation and water supply districts. It was expected to record, publish and make available for general information the results of "surveys, gaugings, borings, and other explorations", and also ascertain and record 'the extent of land from time to time under irrigation in the several irrigation and water supply districts

⁴¹¹ Sugden and Eggleston, *George Swinburne*, 139.

⁴¹² George Swinburne, VPD (Assembly), September 7 1904, 1421.

and the nature of the crops grown in and the products of such districts.⁴¹³ The authority was further tasked with the instruction of farmers 'in irrigation and water supply districts in the best methods of irrigated culture of the utilisation of water as applied to agriculture and in general rural economy,' and to promote 'the discussion of matters of general interest among the settlers in the irrigation and water supply districts by public conferences annual or otherwise.'⁴¹⁴ However, the SRWSC was not required by the Act to meet a specified objective. Rather, its organisational priorities were to be a direct reflection of the legislative objectives that Swinburne had explicitly stated in parliament.

First, it is an absolute necessity to conserve the whole of the available waters of the State, and to distribute them to the best possible advantage and *obtain the best beneficial use of them in production*. At the same time in carrying out this great order, it is necessary that the Government should see that *the money is spent in the most business-like manner, and that the system should pay its way as far as possible*. [*Emphasis Added*]⁴¹⁵

Summary

The inclusion of Swinburne's secondary objective of "economic return" through introducing a differential rating system for lands benefitted by water and the compulsory "water right", and the creation of an incorporated statutory authority in the SRWSC are broadly representative of alterations that were expected to produce a marked improvement to the effectiveness and efficiency of irrigated development in Victoria. In both cases, the amendments highlight how Deakin and Irvine directly inspired and encouraged Swinburne's "Water Act", and how their involvement equally represented an intention to correct the "learned effects" of previous policy

⁴¹³ Water Act 1905 (Vic) s 38.

⁴¹⁴ Water Act 1905 (Vic) s 38.

⁴¹⁵ George Swinburne, VPD (Assembly), September 7 1904, 1418.

decisions. However, these are overshadowed by the paramountcy of riparian rights and the significance overcoming them had attained in each of the minds of Deakin, Swinburne and Murray. Their collective stepwise advance towards reassessing and altering the "crown rights" clauses is representative of a policy progression that managed to cut across governments considerably separated by time. However, it is also obvious that a clear line of connectivity existed between Deakin's assertion of "crown rights" in his Irrigation Act, Deakin and Murray's attempts at amending that section, Murray's later attempt to revive and improve upon the same amendments, and Deakin and Swinburne's presence at a public meeting together in support of the policy of shortly before Swinburne's ascension to the ministry and the final resolution of the "crown rights" formula. It is undeniable that Swinburne's massive commitment to the legislation was the reason for its passage, yet he gave himself little credit for its contents as he fundamentally believed the achievement to be Deakin's. The extent of this belief is revealed by a personal note from Swinburne to Deakin which revealed his appreciation for Deakin's extensive contributions to rural water supply legislation in the state:

I write a line to let you know the Water Bill passed finally tonight. I feel very pleased that *we have succeeded* in considerably furthering the water question especially in regard to Riparian Rights and in accomplishing what you tried hard to do all those years ago. To you all the honour is due for *having laid the foundation of this matter and for having pointed out what was necessary to make it complete*. To have followed your ideas has been a great honour to me, and in explaining my pleasure in the passage of the Bill I congratulate you on another step forward on the great water question which you have always had so much at heart. The State will never repay you for the grand enthusiasm and work which you put into the establishing of our great material asset. I personally owe a debt of gratitude to you for the help which I have gained from your writings and your kind encouragement. [*Emphasis Added*]⁴¹⁶

⁴¹⁶ Papers of Alfred Deakin, *Letter from George Swinburne to Alfred Deakin November 14 1905*, National Library of Australia, MS1540, Item 10/87, Pages 1-3.

Deakin, Swinburne, Murray and Interstate Water Agreements

Swinburne, Deakin and Murray's advanced knowledge and understanding of rural water supply also extended into the federal sphere. In recognition of Murray's advanced technical knowledge of Australian waterways, he was appointed as Victoria's representative at the *Interstate Royal Commission on the River Murray* (and was the main contributor to its final report); Deakin contributed to a number of debates over "inter-state water rights" at the federal conventions and during his time in the federal parliament (and actively attempted to achieve inter-state agreement over the Murray waters; and, Swinburne's knowledge of common law riparian rights assisted the ongoing debate towards an agreement between the states on the Murray waters. Moreover, Swinburne's contributions coupled with Deakin's persistent advocating of irrigated development as a necessary component of state action provide examples of Victorian experience and leadership informing the federal water debate. All three gentlemen pushed for an interstate agreement over the waters of the River Murray, although Deakin and Swinburne also appeared to have envisaged a role for the federal body, the Interstate Commission in federal rural water supply development.

The federal conventions and section 100 of the Commonwealth Constitution

As early as the 1891 Australasian Federal Conference matters of water law as they pertained to interstate trade, navigation of inland waterways and water conservation were being considered in a far broader context. Deakin's influence over federation is obvious, although he also played a key role in resolving many disputes between the colonies with regard to water supply. One of his most persuasive statements to the conference explained why he was convinced that interstate cooperation over rural water supply and irrigated development were integral to the future of the nation: It is an indisputable fact that water conservation will be absolutely necessary to the future of one or two of the states, and it will be a matter of great difficulty for them to cope with all the difficulties of the question by any of the legislative power which they now possess. Each state can legislate within its own borders; but that is a different thing from passing a measure which will exactly dovetail in with the legislation of another colony, so as to permit of joint action and joint responsibility.⁴¹⁷

By the time of the 1897 Convention the debate over inter-colonial claims to the waters of the Murray-Darling basin had intensified, largely as a result of the "federation drought". Connell notes that the debate 'about the rivers involved three distinct but interdependent issues: water for irrigation, stock and people; the protection and enhancement of navigation activities; and the relationship of both issues to the competing rail networks of the two eastern States.'⁴¹⁸ Clashes between South Australia and New South Wales were particularly fierce and Deakin chose a neutral position in order to protect the greater interests of federation, but he also continued to focus on the need for an agreement between the states. 'No doubt when the federal authority is established there will be a growth of the federal spirit which; yet but in its germ, and under these circumstances the reasonable and proper application...for a conference upon this question will properly be acceded to.'⁴¹⁹

When the issue of navigation was resolved early in the 1898 convention through extending Commonwealth powers over trade and commerce to the protection of navigation⁴²⁰ the debate

⁴¹⁷ Official Report of the National Australasian Convention Debates, (Sydney, 1891), 691.

⁴¹⁸ Connell, Water Politics in the Murray, 58.

⁴¹⁹ Official Report of the National Australasian Convention Debates, (Adelaide, 1897), 807.

⁴²⁰ Connell, *Water Politics in the Murray*, 61; the amendment was put forward on the suggestion of Edmund Barton.

shifted to the concerns of New South Wales and the usage of the water within its boundaries. Deakin again argued that 'it would be an immense gain to the continent as a whole if the river system could be federalized, if the federalizing of it could be effected without imperilling, the interests of New South Wales.⁴²¹ This extended the view that the development of the Murray and its tributaries were critical to the eventual development of the interior (a position that Deakin had long maintained). However, the New South Wales delegates were particularly indignant towards any level of federal authority over the river system and pushed their claims until a resolution was reached that would adequately protect the water rights of the new States. It took the form of section 100 of the Commonwealth Constitution: 'The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.⁴²² Deakin supported the clause, accepting that water would remain a residual power of the States although he maintained that it was 'an issue of the first importance...Our only safety lies in facing it frankly and fully, and putting in the Constitution in plain words what are the respective rights of the states and of the Commonwealth in regard to the rivers of Australia.⁴²³ He was clear in the view that each state would hold primary interests in water resources for the purposes of agricultural development, but he was also acutely aware that the Murray system required some form of collective action between the governing interests. ⁴²⁴

⁴²¹ Official Record of the Debates of the Australasian Federal Convention, Third Session, (Melbourne, 1898), 45.

⁴²² Commonwealth of Australia Constitution Act 1900 (UK) s 100.

⁴²³ Official Record of the Debates of the Australasian Federal Convention, Third Session, (Melbourne, 1898), 1974.

⁴²⁴ Connell, *Water Politics in the Murray*, 65; Connell also alludes to the significance of leaving the control of water resources in the hands of governments rather than the courts.

'Corowa' and beyond

Collective action eventually happened as a result of the prolonged effects of the federation drought (1895 – 1902), as New South Wales, Victoria and South Australia moved to resolve the complexities of the inter-jurisdictional situation at a 1902 conference at Corowa. Connell notes that 'planning and preparation of the 1902 conference was undertaken by community committees. However, the presence in Corowa during the conference of senior politicians from four governments indicates considerable political coordination and encouragement behind the scenes.⁴²⁵ Victoria and New South Wales were each preparing to press ahead with ambitious irrigation projects while South Australia continued to advocate for the protection of the navigability of the Murray-Darling system. Corowa offered the opportunity for each of the states to negotiate a lasting solution. The meeting resolved that an inter-state commission led by senior engineers from the three states would 'enquire and report as to the best means of conserving the waters of the Murray.'426 This resolution led directly to the appointment of the Interstate Royal Commission on the River Murray (hereafter 'ISRC') and was pivotal to establishing a framework for the ongoing collective discourse between the states. Due to his advanced technical knowledge of the river system Stuart Murray participated in the royal commission as Victoria's representative. A S Kenyon later wrote of Murray's role that it was 'an open secret that the monumental report of that body - a report which still stands as a reference upon most aspects of irrigation in Australia - was in the main the work of Mr. Murray.'427

⁴²⁵ Ibid, 84.

⁴²⁶ Ibid.

⁴²⁷ Kenyon, *Stuart Murray and Irrigation*, 120.

Figure 2.4: "The Corowa Conference" – Source: *The Sydney Mail and New South Wales* Advertiser⁴²⁸

⁴²⁸ 'Water conservation', *Sydney Mail and New South Wales Advertiser* (Sydney), April 12 1902, 919, Retrieved: <u>http://nla.gov.au/nla.news-article163814226</u>, (18 December 2016).

Less than two months after the ISRC Victoria continued to maintain a tough stance with regard to the acceptable limits of allowable flow through the Murray into South Australia. In contrast, the South Australian position advocated the needs of navigation before any consideration could be given to the needs of irrigation (and only then if there was sufficient additional flow to accommodate it).⁴²⁹ In response to continued South Australian unrest, Irvine argued:

It would have been competent for upper riparian States to impound and conserve, for irrigation or for any other domestic purposes, the rain waters falling within their own territories,' he then continued, 'there are no riparian rights as between self-governing dependencies of the Crown unless granted and defined by the supreme Legislature which has created those dependencies and has conferred autonomy upon them. It can hardly be contended that any such rights were created expressly or by implication in the respective constitutions of New South Wales, Victoria or South Australia.⁴³⁰

Irvine expressed his belief that section 98 of the Commonwealth Constitution⁴³¹ limited Commonwealth power to the regulation of traffic on navigable waterways only to the extent that this would fit within the purposes of trade and commerce. When read in connection with the "reasonable use" test in section 100, the responsibility of the Commonwealth was to recognise the rights of each "State and of the residents therein" to the use of water for conservation or irrigation. Irvine contended that this suggested 'the paramountcy of this right to any rights or powers in relation to navigation.⁴³² These complexities assist in the explanation of Deakin's desire for the interested states to reach an amicable settlement of the issue as a

⁴²⁹ Connell, Water Politics in the Murray, 89.

⁴³⁰ 'The Murray waters – South Australian protest – reply by Mr. Irvine', Age (Melbourne), January 30 1903, 8.

⁴³¹ Commonwealth of Australia Constitution Act 1900 (UK) s 98; 'The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.'

⁴³² Ibid.

necessary consequence of what he viewed as the uncertain implications of section 100. In the commonwealth parliament he stated 'of all the obscure provisions in the Constitution, those relating to the powers of this Parliament in regard to its control of water supply are among the most difficult.⁴³³ Deakin undoubtedly believed the question of agricultural water supply to be that of the "future of Australia".⁴³⁴ Due to state uncertainty over how the matter would be interpreted within the courts, intergovernmental cooperation (as Deakin had always maintained) became the preferable option.⁴³⁵

Swinburne and the negotiation of a Murray waters 'agreement'

While a tentative agreement on the "apportionment of flows" was reached between the three state premiers in April 1903 'it was only in Victoria, however, that legislation to implement the agreement was submitted to parliament where it lapsed after the first reading.⁴³⁶ As the federation drought had abated, so had the conviction of the state governments involved, and the absence of a binding agreement had left Victoria and New South Wales in significantly more dominant positions than that of South Australia. Shortly after the passage of his Water Act, Swinburne took it upon himself to attempt a resolution to the stalemate by drafting a 'concrete agreement embodying a scheme which could be discussed.'⁴³⁷ Swinburne's subsequent memorandum was presented to the 1906 Premier's conference and established the core principles of an agreement that the Victorian delegates desired to see adopted.⁴³⁸ Attention

⁴³³ Alfred Deakin, *Commonwealth Parliamentary Debates* (CPD), House of Representatives, September 24 1902, 16021.

⁴³⁴ Murdoch, *Deakin: A Sketch*, 216.

⁴³⁵ Connell, Water Politics in the Murray, 81.

⁴³⁶ Ibid, 91.

⁴³⁷ Sugden and Eggleston, *George Swinburne*, 215.

⁴³⁸ 'Murray waters question – memorandum by Mr. Swinburne', Age (Melbourne), April 11 1906, 7.

to detail through incorporating the advice of earlier engineers' reports and devising a framework that was capable of continued amendment resulted in the memorandum becoming one of the most important contributions to the eventual resolution of the matter, and following considerable negotiation and compromise, an agreement was reached over a draft Bill in June 1907.⁴³⁹

The three State Premiers (Thomas Bent – Victoria, Thomas Price – South Australia and Joseph Carruthers – New South Wales) met to sign the agreement one month later, each of them concerned with the impending difficulty of attempting to ratify the agreement in their respective parliaments. Price called for Swinburne to discuss the matter in an adjoining room. Sugden and Eggleston offer the following account:

When they were there together Price said, "Before I sign the agreement I want you, who know more about it and the effect of it than any other man, to declare...that it is a fair and reasonable agreement for South Australia to sign." Swinburne gave the assurance and Price wrung his hand warmly, and they returned to the other room to sign.⁴⁴⁰

When Swinburne later introduced the *Murray River Waters Bill* to the Legislative Assembly he proclaimed that Victoria had never acknowledged the South Australian legal position, but 'steadily adhered to the arguments so ably put forward by Mr. Irvine when he was Premier, but we strenuously – very strenuously indeed – endeavoured to work out an agreement between the States in a friendly way and, while protecting our just rights, to preserve the cordial relations which existed between the States.'⁴⁴¹ However, the Bill was eventually stood over to the

⁴³⁹ 'Murray waters – interstate agreement reached', *Sydney Morning Herald* (Sydney), June 7 1907, 3.

⁴⁴⁰ Sugden and Eggleston, *George Swinburne*, 216.

⁴⁴¹ George Swinburne, VPD (Assembly), July 25 1907, 299-300.

following parliamentary session when it was realised that the New South Wales and South Australian parliaments would not ratify the agreement.⁴⁴²

Consideration of the Bill in the Victorian Legislative Assembly focused closely on Swinburne's comprehensive research on the legal clarification of riparian rights between the three states and the advantages to irrigation through accepting the South Australian position of locking the Murray.⁴⁴³ By this stage Swinburne had become more concerned, however, with internal instability within the Bent ministry, and he eventually "retired" from the Cabinet due to a fundamental disagreement with Bent over his proposed land tax.⁴⁴⁴ Nonetheless, Swinburne's involvement in negotiating an inter-state agreement continued to have a lasting influence over the progression of the Murray waters question. In particular, Swinburne's contributions to the debate in the assembly over the *Murray River Waters Bill (No2)*⁴⁴⁵ highlighted that (in his view) agreement between the States was essential, and he further noted that 'everyone who has considered this question seriously has strongly urged the great necessity for coming to an agreement.^{*446} However, these attempts to resolve the water resources question adequately through an interstate agreement continued to prove unsuccessful and remained an ongoing problem for the States and the Commonwealth.

⁴⁴² 'Murray waters – bill to stand over', Argus (Melbourne), November 13 1907, 8.

⁴⁴³ George Swinburne, VPD (Assembly), July 14 1908, 119-146.

⁴⁴⁴ 'Bent government – reconstruction – three ministers retire', Age (Melbourne), October 30 1908, 5.

⁴⁴⁵ George Swinburne, VPD (Assembly), November 24 1908, 1537.

⁴⁴⁶ Victoria, Parliament, *Report of the Royal Commission on the Murray Waters*, Parliamentary Paper (no. 7), (Melbourne, Government Printer, 1910) x.

Deakin, Swinburne and the 'Interstate Commission' for water supply?

By 1910, the question of the Murray River and section 100 of the Commonwealth Constitution again came before the House of Representatives on a motion by Sydney Sampson (a little-known Fusion⁴⁴⁷ opposition member who represented the Victorian electorate of Wimmera, and was the uncle of future Prime Minister Robert Gordon Menzies). Sampson's motion proposed the amendment of section 100 in order to place the waters of the Murray and its tributaries under federal control.⁴⁴⁸ In demonstration of the importance of establishing a level of federal jurisdiction, Sampson relied heavily on the report of the *Victorian Royal Commission on the Murray Waters*.⁴⁴⁹ He argued that the question of such an inter-jurisdictional waterway was beyond the legislative capacity of the states and that the needs of the nation outweighed individual state interests. Furthermore, Sampson was of the view that federal control of water should be maintained separate of state land policy and that the matter should be controlled by an "Interstate Commission".⁴⁵⁰

Debate on the motion included a measured speech by Deakin in which he considered water resources development since the passage of his *Irrigation Act* in 1886. 'One regrets the years that have been lost, the population that has been lost, and the prosperity that has been lost by our tardiness.'⁴⁵¹ Deakin believed that the primary failure over the Murray resided with the

⁴⁴⁷ "Fusion" refers to the organisation of non-Labor political groupings as a single entity behind Deakin as its leader.

⁴⁴⁸ Sydney Sampson, CPD (House), September 22 1910, 3584.

⁴⁴⁹ Victoria, Parliament, *Report of the Royal Commission on the Murray Waters*, Parliamentary Paper (no.7), (Melbourne, 1910); A major recommendation of the commission was for an inter-state board that could provide for development of the Murray basin.

⁴⁵⁰ Sydney Sampson, CPD (House), September 22 1910, 3593-94.

⁴⁵¹ Alfred Deakin, *CPD* (House), September 5 1912, 2938. By 'tardiness' Deakin referred to the initial moves that had been made towards interstate agreement on the Murray and made reference to the recent Victorian Royal Commission on the Murray Waters establishing the next step in terms of continued development.

concomitant failures of the concerned States and he argued for cooperative action on locking and further utilising the Murray for the benefit of both navigation and irrigation. The motion to amend Section 100 also highlighted commonwealth confusion over the inclusion of the words "reasonable use".⁴⁵² These words were the central point of contention for the parliament and the dominant reason why Sampson had put the original motion. Quick and Garran have previously examined the inclusion of the word "reasonable" and concluded that 'the question of unreasonableness, however, would seem to be more proper for the [Interstate] Commission than the courts.⁴⁵³ With Fusion opposition members pushing the case for section 100 amendment (which would have required a referendum following the procedure established by section 128), resolution of the matter required Labor Prime Minister Andrew Fisher to commit to an appropriate compromise. Fisher subsequently brought the Interstate Commission Bill before parliament and the proposed amendment of section 100 was withdrawn.⁴⁵⁴

Deakin's Fusion Ministry had initially brought an Interstate Commission Bill in 1909 and a majority of that measure was incorporated into the Bill proposed by Fisher. Among its primary responsibilities the commission would be empowered to 'deal with questions of the navigability, the use, and the apportionment of the use, subject to the Constitution, of the Inter-State waters of Australia.'⁴⁵⁵ Speaking on the measure, Deakin referred to the state of friction that had existed between New South Wales, South Australia and Victoria in connection with the river problem at the federal conferences. It was his opinion that the three concerned states "were never on worse terms" and had exhibited an extremely "unfriendly attitude" to one

⁴⁵² Alfred Deakin, CPD (House), September 5 1912, 2941.

⁴⁵³ John Quick and Robert Garran, *The annotated constitution of the Australian Commonwealth*, (Sydney, 1901), 892-893.

⁴⁵⁴ Connell, Water Politics in the Murray, 96.

⁴⁵⁵ William Hughes, CPD (House), December 13 1912, 7066.

another. He further noted that in an attempt to overcome this 'excitement, ill-temper, and suspicion which then barred the way to any progress in this regard that, after a great deal of debate at the several meetings of the Federal Convention, the Interstate Commission was created.' Deakin was adamant that the Inter-State Commission '*was authorized for the very purpose of harmonizing these inharmonious conditions – providing for the utilization of the waters of the country, and removing the sources of exasperation associated with our relatively unending country suitable for cultivation when water is supplied.' [Emphasis Added]⁴⁵⁶ Deakin further appeared to believe that the arrival of the Interstate Commission was the critical ingredient to the removal of the largest of barriers to irrigated development. 'Once link the States together in common enterprise, and we shall acquire a new tie, thus making for the further population of the country, for its further settlement, for its higher productiveness.'⁴⁵⁷*

Eggleston has suggested that the urgency of inter-jurisdictional politics that had enveloped the Murray waters issue is also the likely reason for Swinburne's appointment to the Interstate Commission at its inception.⁴⁵⁸ His experience and expertise made Swinburne a sensible choice given there was an apparent perception that the Murray waters question was intended to come before the commission. In a letter to his uncle (John Coates), Swinburne saw the appointment as a great honour, and that 'the work that the Commission can do for the *economical development of Australia* is very far-reaching and really can be of greater use than any Parliament or public body.²⁴⁵⁹ Within two years of the creation of the Interstate Commission a final agreement on the Murray waters was reached in 1914 and ratified by the States in the

⁴⁵⁶ Alfred Deakin, CPD (House), December 16 1912, 7136.

⁴⁵⁷ Alfred Deakin, *CPD* (House), December 16 1912, 7137-7138.

⁴⁵⁸ Sugden and Eggleston, *George Swinburne*, 311.

⁴⁵⁹ Ibid, 315.

context of returned drought conditions across the Murray-Darling states. Moreover, the Commonwealth subsequently became involved in the negotiations and signed on as a party to the agreement.⁴⁶⁰

Clark contends that the Commonwealth's efforts to create the Interstate Commission and then to become involved in the resolution of the Murray waters issue 'was the background against which the River Murray Waters Agreement was signed in 1914...the complementary operation of the Interstate Commission and the River Murray Commission must have been envisaged and may well have partly dictated the appointment of Swinburne.⁴⁶¹ However, the Commission's status as a 'quasi-judicial' body was invalidated by the High Court's adjudication of the "Wheat Case"⁴⁶² rendering it powerless to do more than investigate and report. As a result, the Commission never received the opportunity to preside over a hearing of the Murray waters problem. Swinburne resigned from the Commission in August 1917, "dissatisfied" with the limitation of its powers.⁴⁶³

⁴⁶⁰ Connell, Water Politics in the Murray, 92-95.

⁴⁶¹ Sandford Clark, 'Inter-Governmental Quangos: The River Murray Commission', *Australian Journal of Public Administration*, Vol 42(1) (1983), 160; Clark contends that the High Court's "annihilation" of the Inter-State Commission had two major consequences for the River Murray Waters Agreement: 'First, it wiped out yet another institutional mechanism expressly designed as part of the federal scheme, which might have acted as an independent arbiter of contending State interests in the river...The second consequence was to change the ambient ether in which the River Murray Waters Agreement existed.'

⁴⁶² New South Wales v Commonwealth (1915) 20 CLR 54 (March 23 1915), Retrieved: <u>http://www.austlii.edu.au/au/cases/cth/HCA/1915/17.html</u>, (15 November 2015).

⁴⁶³ 'Mr George Swinburne resigns from interstate commission', Argus (Melbourne), August 14 1917, 6.

Summary

The collective expertise that Deakin, Swinburne and Murray brought to legislating for rural water supply in Victoria later transferred to the federal sphere. They advanced the debate for interstate agreement with the intention of a greater utilisation of River Murray waters in agricultural development. Their activity in this space demonstrated the extent of their commitment to the pursuit of irrigated development (whether it be restricted within State boundaries, or more broadly between the States). Moreover, Deakin and Swinburne clearly envisaged that these activities would further lead to a significant role in prioritising the arbitration of the Murray waters question by the Interstate Commission.

Conclusion

This chapter demonstrates that the collective efforts of Deakin, Swinburne and Murray were extremely influential in the development of the core legislative objectives that would become the integral institutions of water governance in Victoria. The complex institutional structures that their efforts produced would later be found to have a profound influence over the decision making of subsequent actors. Central to this institutional structure, the policy objective of *irrigated development* characterised by Deakin's Irrigation Act in the 1880s was reinvigorated by Swinburne's Water Act and embodied the continued focus on the assertion of "crown rights" to water. The attempts at legislative amendment undertaken by Deakin and Murray establishes that the crown rights clauses were regarded as foundational measures critical to the development of irrigation across the state. Swinburne's Act combined the objective of irrigated development with the secondary objective of *economic return* which, in part, reintroduced Deakin's earlier efforts to see lands benefited by irrigation appropriately rated. This included

the introduction of a system of irrigation charges based on the notion of a compulsory water right whereby irrigators would receive a fixed quantity of water at a cost that was intended to reflect the benefit of that water to their land. In addition, the new Water Act created a centralised and independent rural water body in the form of the State Rivers and Water Supply Commission. Moreover, the considerable efforts of Deakin, Swinburne and Murray later crossed into the federal sphere. Each of them approached the problem from a different perspective, but they each attempted to advance the water debate towards an interstate agreement over the use of the waters from the River Murray in order to achieve the developmental principles of their water policy in the broader national context. In particular, both Deakin and Swinburne envisaged that this would include a significant role in arbitration to be performed by the Interstate Commission.

Part 2

Chapter Four: The McClelland Commission 1936

This chapter studies the events that led to the formation of The Royal Commission on the Expediency of Amending the Water Act 1928 (hereafter the 'McClelland Commission'), and the subsequent repudiation of the secondary objective of economic return as the Dunstan government prioritised the continued expansion of irrigated development. This chapter further marks the transition of rural water supply governance into the development phase. As the first case study⁴⁶⁴ concerning rural water supply governance, it also considers the influence of path dependent processes and self-reinforcing policy trajectories, and the effects of choices that alter the interpretation and meaning of policy objectives. The chapter begins with an outline of the principal factors that led to formation of the McClelland Commission, specifically, the accumulation of settlers' arrears and the SRWSC's massive loan liabilities stemming from an over-expansion of settlement, the subsequent instability of agricultural markets and the effects of the depression. It then considers the McClelland Commission's inquiries and recommendations, with a particular focus on its views regarding the state government's policy of "forced development", and the commissioners' warning that continued advancement of irrigated development in Victoria was no longer required or feasible.

Specific focus is given to the Dunstan government's response to the McClelland Commission reports as it extended upon a notion of irrigated development that regarded extensive financial losses to be an unavoidable by-product in the pursuit of expansion. The chapter then considers

⁴⁶⁴ This thesis adopts a broad definition of a "case study" as applied by Orum, Feagin and Sjoberg: 'An in-depth, multifaceted investigation, using qualitative research methods, of a single social phenomenon'; Joe R Feagin, Anthony M Orum, Gideon Sjoberg (eds.), *A Case for the Case Study*, (Chapel Hill, 1991), 2. Gerring sees the case study as 'an intensive study of a single unit' such as a 'nation-state, revolution, political party, election, or person – observed at a single point in time or over some delimited period of time'; See: John Gerring, 'What Is a Case Study and What Is It Good For?', *American Political Science Review*, Vol 98(2) (2004), 342.

the events of this period as an example of a self-reinforcing policy trajectory where the continued assertion of expansionist policies of irrigated development resulted in a formalised departure from the objective of economic return. This analysis is advanced through the consideration of the influence of preference formation as a consequence of earlier policy decisions and the effect of path dependent processes on the policy trajectory. The formation of an actors preferences is the result of the conversion of information from the actor's environment into "evaluations of political objects".⁴⁶⁵

This chapter will broadly demonstrate the effect of a robust institutional structure on the decision making of actors, and the ways in which this can result in a constrained policy environment. The use of path dependent analysis and focus on preferences specifically directs to a 'broader discussion of the temporal order in which historical alternatives present themselves, and the ways in which this forecloses certain possibilities while enhancing the prospects of others.'⁴⁶⁶ This chapter argues that the policy preferences expressed in the decisions of the Dunstan government following the 1930s depression largely reflected the assumed social and economic value of the "indirect benefits" of irrigated development as the central justification for continuing with developmental policy objectives. As a result, this reasoning propelled the Dunstan government towards a singular notion of irrigated development at the expense of an economic return to the State on the investment of public funds into large-scale irrigation works.

⁴⁶⁵ James Druckman and Arthur Lupia, 'Preference Formation', Annual Review of Political Science, 3 (2000), 8.

⁴⁶⁶ Paul Pierson, *Politics in Time*, 64.

	1920	Acquisition of Red Cliffs for Soldier Settlement
	1921	
	1922	
	1923	
Torrumbarry Lock/Weir Completed	1924	
	1925	Royal Commission on Soldier Settlement (Vic)
	1926	
	1927	
Eildon Reservoir (Stage One) Completed	1928	Water Act (1928)
Election of Hogan Government (Minority)	1929	Beginning of depression
	1930	
Premiers' Plan	1931	
Formation of Argyle Government (Coalition with Country Party)	1932	Closer Settlement Act (1932) Formation of Closer Settlement Commission
	1933	
	1934	
Formation of Dunstan Government (Minority)	1935	
Royal Commission on the Expediency of Amending the Water Act 1928 (The McClelland Commission)	1936	Hume Reservoir (Stage One) Completed
	1937	Water Act (1937)
	1938	
	1939	
	1940	
	1941	
	1942	
	1943	
Entire capital liability of irrigation works passed to State	1944	Water Act (1944)

Figure 4.1: Chapter 4 Timeline

Irrigation Development, Government Debt and the Great Depression

The expansion of irrigation that came during and after the First World War gave rise to an accumulation of public debt that was beyond the means of the SRWSC to recoup by levying rates against the lands it administered. In effect, the financial woes of irrigated agriculture had reached a point where 'the rising incidence of outright forfeitures and heavy arrears in all kinds of payments questioned the *raison d'être* of the SRWSC.'⁴⁶⁷ These circumstances raised significant questions of whether continued rural water supply development was an economically sound prospect, and more broadly, how the financial responsibility for the costs of development would be apportioned. To this end, the state Auditor-General, J A Norris made it clear that 'the simple fact was that the general public had been carrying on the average about £17,000,000 of the £25,000,000 capital liability of the State's water supply costs.'⁴⁶⁸

In fact, the accumulated SRWSC deficits underscored a far more devastating conflagration of events. An overexpansion of irrigated settlement throughout the State, and inherently unstable agricultural markets (particularly in the latter years of the 1920s), had left many closer and soldier settlers financially exposed. With the arrival of the depression and the eventual agreement between national and state governments to institute the Premiers' Plan, these pressures were further exacerbated. In this environment, the continuation of irrigated development – where costs clearly exceeded revenue – became dependent on the emerging justification of costs based on the "indirect benefit" that irrigated development delivered to the entire economy.

⁴⁶⁷ Powell, Garden State, 194.

⁴⁶⁸ 'Water supply finance – costing the tax-payer millions', *Age* (Melbourne), July 8 1936, 16.

Rural expansion, closer and soldier settlement – government debt

Across the two decades that followed the end of the First World War the SRWSC had overseen a water storage expansion programme that reflected a consensus view of unrestrained irrigated development. Prior to the SRWSC's existence, the capacity of Victoria's rural water storages were estimated at 212,000 megalitres. By 1915, storage capacity had more than doubled, reaching 475,000 megalitres. In 1935, the capacities of all water storages managed by the SRWSC (including its share of the Hume Dam) had massively increased to 2,350,000 megalitres.⁴⁶⁹ Large increases in water storage capacity underscored the commitment to irrigated development and reflected a prevailing view that future economic growth was "almost exclusively" connected with primary industries.⁴⁷⁰ The considerable increase in storage capacity accompanied equally large increases in irrigable acreage, which was approaching 500,000 acres by 1935 (up from 216,000 acres in 1905).⁴⁷¹ After 1912, the SRWSC had taken responsibility for the administration of closer settlement on irrigated estates as a result of the efforts of its American chairman Elwood Mead (1858 - 1936). Mead had replaced Stuart Murray in the role, and his appointment was the result of Swinburne's considerable efforts to find an administrator suitably impressed of the benefits of closer settlement to agricultural development.⁴⁷² Mead was a particularly strong influence in building the agency's administrative practices and expanding its developmental role during his chairmanship (1907 - 1914).

⁴⁶⁹ State Rivers and Water Supply Commission, *Thirtieth Annual Report 1934-35*, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1935), 23; State Rivers and Water Supply Commission, *Tenth Annual Report 1914-15*, (Parliamentary Paper (no.42), (Melbourne, Government Printer, 1915), 27.

⁴⁷⁰ C B Schedvin, Australia and the Great Depression – A Study of Economic Development and Policy in the 1920s and 1930s, (Sydney, 1970), 62.

⁴⁷¹ State Rivers and Water Supply Commission, *Thirtieth Annual Report 1934-35*, Parliamentary Paper (no.18), (Government Printer Melbourne, 1935), 21.

⁴⁷² Powell offers a comprehensive account of Elwood Mead's "sojourn" at the SRWSC; Powell, *Garden State*, 150-167.

[Figure ommitted for copyright purposes. Refer to Powell, 'The mapping of 'soldier settlement': A note for Victoria, 1917–29', 46.]

Figure 4.2: Distribution of soldier settlement allotments 1927 (Irrigation Allotments are represented as clear circles) – Source: J M Powell, 'The mapping of "soldier settlement": A note for Victoria, 1917–29'⁴⁷³

The SRWSC's expansion of irrigation saw it establish 17 additional irrigation districts, including the opening of new estates for "soldier settlement". These settlements brought about a substantial increase in the size of the total irrigable land area in the state and further increased the number of farmers who were dependent on irrigation supply.⁴⁷⁴ The main settlements for returned soldiers were in the North Central, Mallee and West Gippsland regions (Figure 4.2 above), and of these, the greatest number of irrigated allotments (approximately 700) were developed in the Red Cliffs district adjacent to Mildura (Figure 4.3 below). The Red Cliffs scheme was the largest (and most successful) of its kind in Australia, but this was in contrast

⁴⁷³ Joseph Powell, 'The mapping of 'soldier settlement': A note for Victoria, 1917–29', *Journal of Australian Studies*, Vol 2(3) (1978), 46.

⁴⁷⁴ Smith, Water in Australia, 158.

to many more settlements which were regarded as dismal failures, resulting in many settlers vacating the land.

[Figure ommitted for copyright purposes. Refer to 'State Rivers and Water Supply Commission, Fifteenth Annual Report 1919-20', 36.]

Figure 4.3: Red Cliffs proposal 1920, Source: SRWSC Fifteenth Annual Report, 1919-1920.⁴⁷⁵

⁴⁷⁵ State Rivers and Water Supply Commission, Fifteenth Annual Report 1919-20, Parliamentary Paper (2nd Session no.2), (Melbourne, Government Printer, 1920), 36.

A distinct manifestation of problems associated with the schemes saw the formation of the *Royal Commission on Soldier Settlement* in 1925,⁴⁷⁶ which found that many of the estates comprised excessively small subdivisions and were unsuitable to intensive culture. This was further compounded by many settlers coming onto the land with insufficient capital, and lacking the capacity to farm the land resulting from inadequate training and the effects of mental and emotional traumas as a result of the war. ⁴⁷⁷ Moreover, many of the central issues highlighted by the royal commission were already known. A separate *Royal Commission into Closer Settlement* had similarly identified problems with the suitability of land, excessive charges and settlers sustaining considerable financial losses. Following his retirement (and before his return to the US) Mead addressed the Closer Settlement Royal Commission and suggested that the limits of irrigated development by the State had been reached:

The sole purpose of buying land was to create a demand for our water, and get the channels into use, and make full use of the system. I think we have gone far enough for that, and I do not think we need buy any more land. But I think you can settle up everything without any apprehension of disaster.⁴⁷⁸

⁴⁷⁶ A further federal inquiry chaired by Justice Pike presented its *Report on Losses due to Soldier Settlement* in 1929.

⁴⁷⁷ Victoria, Parliament, Report of the Royal Commission on Soldier Settlement, Parliamentary Paper (no.32), (Melbourne, Government Printer, 1925), 16-18.

⁴⁷⁸ Victoria, Parliament, Final Report from the Royal Commission on Closer Settlement as to the Working of the Closer Settlement Acts in the Irrigable Districts, Parliamentary Paper (no.29), (Melbourne, Government Printer, 1916), 9.

As the post war instability of prices became an 'unexpected and persistent feature of agricultural markets in the 1920s',⁴⁷⁹ it rendered many of these ventures altogether unprofitable. Irrigated closer and soldier settlement schemes had "seriously overexpanded" and the SRWSC had little choice but to attempt to manage the consequences.⁴⁸⁰ Within two years of the Royal Commission on Soldier Settlement releasing its findings the SRWSC had altered its policies for closer and soldier settlement, and in 1927 commenced amalgamating vacated properties with adjacent holdings wherever it was possible to do so.⁴⁸¹ Despite the severity of the situation they were facing the commissioners of the SRWSC stated that closer settlement was "undoubtedly" achieving its main objective: 'The economic utilisation of irrigation water and the development of a real irrigated agriculture.⁴⁸² Davidson has noted that the SRWSC had effectively redefined the "economic" use of irrigation to encompass its "profitable use by farmers" in production.⁴⁸³ Meanwhile, the combined effects of the expansion of post war agricultural development, the failures associated with soldier and (to a lesser extent) closer settlement and continued market uncertainty had seen the total loan liability for irrigation works increase markedly. Soon after, the onset of recession and then depression further aggravated the SRWSC's financial liabilities. By 1935, while the state budget continued to incur large losses associated with the depression, the SRWSC was returning annual operating deficits of nearly £1 million per annum and an accumulated operating deficit approaching £11 million,

⁴⁷⁹ Monica Keneley, 'Land of Hope: Soldier Settlement in the Western District of Victoria 1918-1930', *The Electronic Journal of Australian and New Zealand History*, (2000), Retrieved: <u>http://pandora.nla.gov.au/nph-wb/20010225130000/http://www.jcu.edu.au/aff/history/articles/keneley2.htm</u>, January 23 2013.

⁴⁸⁰ Powell, Garden State, 176.

⁴⁸¹ Davidson, Australia Wet or Dry, 81.

⁴⁸² State Rivers and Water Supply Commission, *Twenty-Third Annual Report 1927-28*, Parliamentary Paper, (no.30), (Melbourne, Government Printer, 1928), 40.

⁴⁸³ Davidson, Australia Wet or Dry, 81.

while its total loan liability had reached £25.5 million.⁴⁸⁴ In contrast, the total loan liability in 1905 had been approximately £6 million. As the depression had taken hold, continually declining commodity prices and the closure of new credit had produced an inevitable contraction.⁴⁸⁵

Rural water supply politics and the depression

"The impact of the international collapse on Australia was immediate and savage."⁴⁸⁶ Factors including the post-war disruption of international trade, the instability of commodities markets and the closure of overseas borrowing held the greatest influence over events in Australia. However, the way these external shocks compounded already retarded economic growth, an upward shift in domestic costs and prices and the resulting profit squeeze in local manufacturing were just as significant.⁴⁸⁷ The Bank of England's adviser on the credit crisis, Otto Niemeyer (sent to dissuade federal and state leaders from defaulting on government debts) had impressed upon the political leaders that increased tariff protection for secondary producers would be achieved at the cost of primary production and that their best option was to focus on the agricultural economy. 'If Australia was to emerge from a regime of emergency tariffs and rationed exchange, she must depend on the primary producer.'⁴⁸⁸ The subsequent "Melbourne Agreement" and the introduction of the Premiers' Plan saw a series of resolutions intended to improve the situation and ultimately restore overseas credit. It included commitments to balanced budgets, currency devaluation, and cuts to wages and welfare payments.

⁴⁸⁸ Ibid, 182.

⁴⁸⁴ Powell, *Garden State*, 184; State Rivers and Water Supply Commission, *Thirtieth Annual Report 1934-35*, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1935), 30.

⁴⁸⁵ Stuart Macintyre, Concise History of Australia, 179.

⁴⁸⁶ Schedvin, Australia and the Great Depression, 47.

⁴⁸⁷ Ibid, 47-50.

Edmund Hogan's Labor minority government 'faced the same dilemma that confronted all Labor governments in the early 1930s; whether to adhere to the dictates of orthodox "sane finance" or embrace more radical policies to give relief to farmers and their traditional working-class constituents.⁴⁸⁹ Such matters were further complicated by irrigators' demands for a 10 per cent reduction in the rate of irrigation water charges, and calls for the appointment of a "practical irrigationist" to the SRWSC board.⁴⁹⁰ This agitation had grown out of the government's proposal to increase irrigation charges in 1930 in combination with an increase to interest rates under the Water Supply Loans Application Act. In response, the irrigation leagues argued that their industry was desperately in need of "sound economic development". Hogan's commitment to seeing the Premiers' Plan through also made him the target of internal party discontent in the parliament and with the Labor central executive. The Scullin government's overwhelming federal election defeat in 1931 and the populism of Lang Labor in New South Wales made Hogan's position even more untenable. Eventually, Labor's infighting over the Premiers' Plan plummeted it into a political abyss of internal conflict which included a lost confidence motion in the Hogan government on the floor of the Assembly, a subsequent electoral whitewash, and finally, a bitter and rancorous split. For his personal trouble Hogan was expelled by the Labor central executive, and went to the backbench as an independent Labor member.491

⁴⁸⁹ Peter Love, 'Elmslie, Prendergast and Hogan: Labouring against the tide', in Paul Strangio and Brian Costar (eds.), *The Victorian Premiers 1856-2006*, (Sydney, 2006), 181.

⁴⁹⁰ 'Conference of irrigators', *Age* (Melbourne), September 11 1931, 8.

⁴⁹¹ Ibid, 183; Hogan later joined the UCP and subsequently became the Minister for Agriculture in the Dunstan Government from 1935 to 1943.

Following Labor's election defeat, a coalition between the United Australia Party (hereafter 'UAP') and United Country Party (hereafter 'UCP') formed government under the leadership of Stanley Argyle – with the support of UCP leader and former premier John Allan. Described as the "Incidental Premier"⁴⁹² Stanley Seymour Argyle (1867 – 1940) was the son of a grazier family from Kyneton. He studied medicine in Melbourne, then London, before returning to Melbourne as a general practitioner in 1895. He entered the Parliament in 1920 following service as a consultant radiologist to the Australian Imperial Force during the First World War.⁴⁹³ Prior to becoming premier Argyle campaigned heavily on the guarantee that a government led by him would oversee a full implementation of the Premiers' Plan, and this was duly obliged. Browne suggests that the direct result was that Argyle left "few positive legacies" for Victoria.⁴⁹⁴

In terms of rural water supply and closer settlement Argyle's policy included honouring commitments to reducing expenditure (where possible) on public works, and amalgamating the SRWSC's responsibilities for assisted settlement with the Closer Settlement Board under a single authority (the Closer Settlement Commission).⁴⁹⁵ Closer settlement accounted for nearly £500,000 of anticipated losses in the 1932 budget and presented as one of the more 'intractable problems for a government committed to financial austerity.'⁴⁹⁶ These losses continued to increase and the 1934 budget recorded depression-related losses on "developmental activities"

⁴⁹² Geoff Browne, 'Stanley Argyle – The Incidental Premier', in Paul Strangio and Brian Costar (eds.), *The Victorian Premiers 1856-2006*, (Sydney, 2006), 205.

⁴⁹³ A G L Shaw, 'Argyle, Sir Stanley Seymour (1867–1940)', *Australian Dictionary of Biography*, (Canberra, 1979), Retrieved: <u>http://adb.anu.edu.au/biography/argyle-sir-stanley-seymour-5049/text8415</u>, (December 15 2013).

⁴⁹⁴ Browne, *The Incidental Premier*, 205.

⁴⁹⁵ 'Closer settlement', Argus (Melbourne), December 28 1932, 6.

⁴⁹⁶ Browne, The Incidental Premier, 209.

and special assistance to primary producers amounting to £925,000. Moreover, they were accompanied by water supply losses approaching £800,000.⁴⁹⁷ Successive Auditor-General's reports questioning the level of indebtedness of the SRWSC's irrigation and water supply districts, eventually led to Argyle's appointment of a Cabinet sub-committee to examine the issue and advise on the overall financial position of rural water supply in the State. The sub-committee review became the responsibility of Minister without office Harold Cohen, and the investigation was conducted by Public Service Commissioner James Harnetty. Its investigations eventually determined that the financial position of the SRWSC was so dire that a royal commission was warranted to restrict the losses.⁴⁹⁸ Argyle's clear focus had been to ensure that the money expended on irrigated agricultural development didn't go to waste.⁴⁹⁹

The desire to review water supply and other aspects of public works spending under Argyle's premiership aggravated existing tensions in the coalition with many UCP members expressing their opposition and demanding 'special treatment for rural interests'.⁵⁰⁰ Internally, the UCP were disillusioned by the coalition arrangement, believing the acceptance of portfolios in the Argyle government to be "self-destructive". With Argyle heavily reliant on UCP support for his government's survival tensions were also magnified within his own party, and at times both UCP and UAP members would cross the floor to defeat government measures.⁵⁰¹ Argyle's premiership had become beholden to persistent disunity between the two parties with inter and

⁴⁹⁷ Stanley Argyle, (Budget speech), VPD (Assembly), August 14 1934, 1076.

⁴⁹⁸ Harold Cohen, *VPD* (Assembly), October 30 1935, 4009-4010; Stanley Argyle, *VPD* (Assembly), December 10 1936, 3828.

⁴⁹⁹ Stanley Argyle, VPD (Assembly), December 10 1936), 3831.

⁵⁰⁰ Antony Lamb, *Of Measures and Men – The Victorian Country Party, 1917 to 1945*, PhD Thesis (Swinburne University of Technology), 2009, 129.

⁵⁰¹ Browne, *The Incidental Premier*, 211.

intra-party conflict at its highest in the background of the 1935 general election. That election saw the UCP increase its parliamentary membership by two at the expense of the UAP. Amid considerable manoeuvring within the parliamentary party and the UCP Central Council following the election, Albert Dunstan was installed as parliamentary leader. Trading on the discord in relations between the parties and finding Labor agreeable to change, UCP members elected to terminate the coalition, brought a motion of no confidence in Argyle's ministry and defeated his government.⁵⁰² As the UCP and Labor had gradually moved together in questioning the efficacy of the Premiers' Plan and the maintenance of high interest rates, this opened common ground between the parties and ultimately assisted Dunstan in the formation of a UCP minority government. Following his ascension to the Premier's office Dunstan stated that his government's central policy commitments were rural rehabilitation and unemployment relief.⁵⁰³

Albert Arthur Dunstan (1882 – 1950) was born into a wheat farming family at Cope Cope in North-Western Victoria. He worked on the family property soon after leaving school, and at 25 he left Victoria and spent 'two profitable years dairying on Queensland's Darling Downs.'⁵⁰⁴ Dunstan returned to Victoria in 1909, later joining the Victorian Farmers' Union (hereafter 'VFU') as an original member and was elected to the Legislative Assembly as the member for Eaglehawk in 1920. He was well known as a "radical" country parliamentarian during the 1920s and was open in his opposition to non-Labor coalitions, bringing him into conflict with VFU leader John Allan. Dunstan led the breakaway Country Progressive Party

⁵⁰² Ibid, 210-213.

⁵⁰³ 'The Governor's Decision – Mr. Dunstan To Form A C.P. Ministry', Age (Melbourne), April 2 1935, 9.

⁵⁰⁴ Brian Costar, 'Albert Dunstan: The Jumping Jack Premier', in Paul Strangio and Brian Costar, *The Victorian Premiers 1856-2006*, (Annandale, 2006), 216.
following a split from the VFU in 1926, before reuniting with VFU members under the UCP banner in 1930.⁵⁰⁵ Dunstan's long premiership (3834 days) was most notable by reason of his constant appetite for power and routine avoidance of challenging policy decisions,⁵⁰⁶ the latter often resulting in depictions of Dunstan along with an ostrich with its head characteristically buried in the sand.



Figure 4.4: "Visibility Restricted" by Harold Armstrong – Source: Argus (Melbourne)507

⁵⁰⁷ Argus (Melbourne), 10 January 1945, 3, Retrieved: <u>http://nla.gov.au/nla.news-article1093892</u>, (December 16 2016).

⁵⁰⁵ J B Paul, 'Dunstan, Sir Albert Arthur (1882–1950)', *Australian Dictionary of Biography*, (Canberra, 1981), Retrieved: <u>http://adb.anu.edu.au/biography/dunstan-sir-albert-arthur-6055/text10357</u>, (December 15 2013).

⁵⁰⁶ Costar, The Jumping Jack Premier, 215.

The "indirect benefits" of irrigation supply

Centrally focused on the policy of rural rehabilitation, Dunstan's intentions regarding rural water supply came to the fore during his first Budget speech to the Assembly, where he proposed 'a thorough inquiry by a competent body into all phases of irrigation and water supply in order to remove anomalies and bring about a more equitable basis of charges.'⁵⁰⁸ A week earlier his ministry approved a reduction of 10 per cent in the general rate of water supply for domestic and stock purposes for the 1935-36 financial year. Dunstan characteristically cast the financial amendments in terms sympathetic to settlers in the irrigated regions. '*The heavy annual loss involved in the operations of the SRWSC shows the serious plight to which our primary producers have been reduced, and until existing conditions improve continued losses are inevitable.*' [*Emphasis added*]⁵⁰⁹ This satisfied the irrigation leagues who had campaigned for the reduction of water supply rates and charges throughout the depression. They maintained that irrigation conferred a benefit on the "whole of the community" and therefore it was the community's duty to carry a reasonable proportion of the cost to ensure that irrigators could enjoy the same basic wage and living conditions.⁵¹⁰

The government defence of reducing rates and charges not only endorsed this view, but extended it through arguing that the achievement of developmental objectives associated with rural water supply provided many "indirect benefits" to the community resulting in an effective offset against any incurred losses by the state. It advocated that the wider economic benefits of intensive agriculture in rural communities was indirectly responsible for broadly related growth in multiple other areas. These "indirect benefits" included increased employment through

⁵⁰⁸ Albert Dunstan, (Budget speech), VPD (Assembly), July 30 1935, 1587.

⁵⁰⁹ Albert Dunstan, VPD (Assembly), 30 July 1935, 1587.

⁵¹⁰ 'Water charges – irrigators protest against increase', Age (Melbourne), November 11 1930, 10.

agriculturally-associated industries, a greater income tax base, the decentralisation of population and wider economic growth connected to the export of primary produce. These rhetorical arguments had emerged during the mid-1920s, defending the losses sustained in advancing soldier settlement schemes on the basis that 'the indirect benefits which would follow from increased settlement and production would justify in time the heavy burden...taxpayers would be called upon to assume.'⁵¹¹ However, the reasoning behind indirect benefits reflected a longstanding practice of maintaining a significant disparity between irrigation charges and costs.

Successive governments had failed to adequately implement (or direct the SRWSC to put into effect) the objective of economic return following the passage of the Water Act (1905), and in so doing, had impaired any notion that economic return and irrigated development were capable of being mutually harmonious. As Minister of water supply in the final months of the Bent ministry, George Graham stated that irrigation water was 'worth more than the cost of supplying it',⁵¹² and levied irrigation charges that met only 50 per cent of the annual SRWSC expenditure. Over the next 20 years water charges did not increase by more than 20 per cent in total.⁵¹³ Reflecting shifting attitudes within government and political pressure both inside and outside the parliament, State irrigation development from this point became dependent on an implied acceptance that the costs of supply would continue to exceed the revenue obtained through water charges. It revealed two certainties associated with the setting of rates and charges under the system as it had developed: despite the best intentions of Swinburne's Act to place the SRWSC beyond the influence of politics, the final approval of rates and charges

⁵¹¹ 'Soldier Settlement – Remission of Losses', Argus (Melbourne), July 29 1925, 16.

⁵¹² 'Government Irrigation Proposals', Weekly Times (Melbourne), June 26 1909, 8.

⁵¹³ 'Conference Of Irrigators', Age (Melbourne), September 11 1931, 8.

remained with the executive government;⁵¹⁴ and successive decisions that suppressed rates and charges provided further incentives for individuals and groups to agitate for the charges to be kept at lower levels. These influences, in combination with the effects of the First World War, then the depression, ultimately created an acceptance within the government that water charges were to be kept below the costs of supply.⁵¹⁵

By the time the Dunstan Ministry came to power these existing beliefs and practices had manifested into robust rhetorical justifications for not only keeping irrigation rates and charges low, but reducing them further. 'If we accept the principle that the State is satisfied to receive its returns indirectly rather than from the water users, then there is a good case made out for a revision of the charges.'⁵¹⁶ Moreover, Dunstan's own statements to the indirect benefits of irrigated agriculture became a commonly repeated rhetorical flourish:

The greatest assets of the State are its irrigation and water supply undertakings, the value of which cannot be measured solely from the budgetary standpoint...The developmental aspect must also be considered. Great indirect benefit that cannot be calculated in pounds, shillings and pence, accrued to the State.⁵¹⁷

⁵¹⁴ Lewis Ronald East, 'The Development of a National Water Politics in Victoria', *Journal of the Institution of Engineers Australia*, January-February (1958), 40.

⁵¹⁵ Public Bodies Review Committee, 'Twelfth Report to the Parliament – Future Structures for Water Management – Final Report: Irrigation and Water Resource Management', (Melbourne, Government Printer, 1984), 68.

⁵¹⁶ Thomas Maltby, VPD (Assembly), October 30 1935, 4001.

⁵¹⁷ 'Water storages will be increased', *Weekly Times* (Melbourne), December 17 1938, 7.

Summary

The post war development of water infrastructure and the expansion of closer and soldier settlement schemes had again exposed the limitations of uncontrolled development in irrigated agriculture. As agricultural markets in the 1920s became increasingly unstable the profitability of farming impacted large quantities of settlers, many of whom left the land forever. The onset of the depression further amplified the effects of the existing pressures, resulting in sharp decreases in export income, and a large economic contraction. During the period of political volatility that followed, a minority UCP government (with the support of Labor) came to power under the leadership of Albert Dunstan. Committed to the policy of rural rehabilitation Dunstan's government viewed the "indirect benefits" of irrigated agriculture as the justification for continued irrigation development and the transfer of liabilities to the general taxpayer. It was a position that aligned seamlessly with an established pattern of successive governments maintaining irrigation rates and charges well below the costs of supply. As a result, Dunstan's main focus moving forward was to appoint a suitable "commission of inquiry" that would endorse the alleviation of the settlers' position, and formalise the transfer of capital losses to the state.

The McClelland Royal Commission

In January 1936, the Dunstan government announced the appointment of a Royal Commission to 'inquire into the operations and finances of the State Rivers and Water Supply Commission.'⁵¹⁸ Placed under the chairmanship of civil engineer, David McClelland, its primary role would be to investigate potential amendments of the Water Act to consider:

⁵¹⁸ 'State irrigation – water commission undertakings', Age (Melbourne), January 15 1936, 11.

writing off the whole or part of the liability; transferring any amount of the total liability to the general taxpayer; and, adding to the number free headworks. The purpose of the primary terms of reference was to see the rates and charges of the SRWSC placed on a "fairer and more equitable basis", although the second term of reference also allowed it to consider any further alleviation of the financial position of settlers on the basis of rates, charges, arrears and interest payments. The inquiry was additionally charged to consider whether the present system of irrigation and water supply met the test of reasonable efficiency, and whether the administrative control of the SRWSC was "efficient and economical". Dunstan's official statement noted that the inquiry would focus on 'whether the financial position of primary producers in regard to irrigation charges should be alleviated, the question of administration charges for domestic, stock and irrigation water supply, capital readjustment of certain works, and the carrying out of water conservation schemes.'519 Exploring the first, second and final reports of the McClelland Commission offers an insight into its examination of the issues facing the SRWSC in the aftermath of the irrigated settlement expansion of the 1920s and the economic consequences of the depression. The commission's third report was separate to the general inquiry, as it specifically focused on the apportionment of the costs associated with drainage and reclamation works in the flood protection districts managed by the SRWSC. It does not feature in this discussion. The McClelland Commission's investigations initially focused on the accumulation of arrears and SRWSC liabilities as had been directed by the government. However, its later reports also gave closer consideration to the factors that had given rise to the SRWSC's loan liabilities and operating deficits, and were particularly critical of successive government policies of "forced development". As a result, its key recommendations offered a means by which the administration of rural water supply could be transitioned to attempt a balance between the competing objectives of development and financial return.

⁵¹⁹ Ibid.

The first report – The SRWSC's liabilities and settlers' arrears

The announcement of the royal commission by Dunstan in January 1936 marked only the second time – since the appointment of Gordon and Black's inquiry into "Irrigation on the Northern Plains" in 1881 – a hydraulic engineer had been called upon to conduct such an investigation. David John McClelland, with his considerable knowledge of the SRWSC water supply network was appointed as the commission chairman. McClelland was a highly experienced civil engineer, qualified land surveyor and lectured on the economics of engineering at the University of Melbourne.⁵²⁰ He was joined on the commission by Alexander Fitzgerald, State President (1935-37) of the Commonwealth Institute of Accountants.⁵²¹ In the years after the royal commission Fitzgerald went on to chair the Commonwealth Grants Commission (1945-1960) and performed an influential role in the improvement of 'governmental financial reports at both State and Federal levels'.⁵²² In addition, Dunstan had made two political appointments. John Joseph Hall was a prominent rural journalist (country editor with the 'Sun') and a founding member of the VFU, who had stood as a UCP candidate in both state and federal elections.⁵²³ The other UCP appointment was George Sydney Greenwood an active party member with experience in irrigation farming from the northern Victorian town of Kerang.

⁵²⁰ Geoffrey Serle, 'McClelland, David John (1873–1962)', *Australian Dictionary of Biography*, (Canberra, 1986), Retrieved from: <u>http://adb.anu.edu.au/biography/mcclelland-david-john-7313/text12685</u>, (January 6 2014).

⁵²¹ G. H. Burrows and L. Goldberg, 'Fitzgerald, Sir Adolf Alexander (1890–1969)', *Australian Dictionary of Biography*, (Canberra, 1996), (Retrieved from: <u>http://adb.anu.edu.au/biography/fitzgerald-sir-adolf-alexander-10191/text18007</u>, (January 6 2014).

⁵²² Ibid.

⁵²³ Ulrich Ellis, *A History of the Australian Country Party*, (Melbourne, 1963), 43; see also: B D Graham, The Formation of the Australian Country Parties, (Canberra, 1966), 127. Hall famously stood aside in the Flinders byelection to secure the election of Stanley Melbourne Bruce for the Nationalists, in exchange for a guarantee that the Nationalists would introduce the preferential voting bill (the 'Flinders' vote) in the next parliament.



Figure 4.5 Photograph of the "McClelland Commission" – David McClelland, George Greenwood, Alexander Fitzgerald, John Joseph Hall, and Commission Secretary Roy Stafford – Source: State Library of Victoria.⁵²⁴

During the earliest stages of the commission's investigations, Alfred Stephen Kenyon, among the SRWSC's most senior engineers and commissioner, had announced his retirement from the authority. Kenyon had been in public service since 1888⁵²⁵ and his position passed to Ronald East who he had been "grooming" for the role. Lewis "Ronald" East (1899 – 1994) joined the SRWSC in 1922 after service as an "air mechanic" during the First World War.⁵²⁶ An accomplished engineer and Kenyon's most talented protégé, East was previously responsible for compiling the SRWSC submission to Stanley Argyle's Cabinet sub-committee inquiry in 1933. In many respects, this role assisted East in developing a considerable insight into the key

⁵²⁴ State Rivers and Water Supply Commission photographer, State Library of Victoria - Rural Water Archive, Retrieved: <u>http://digital.slv.vic.gov.au/</u>, (August 2 2016).

⁵²⁵ Powell, Garden State, 169.

⁵²⁶ Australian War Memorial, First World War Embarkation Rolls (online resource), Retrieved: <u>https://www.awm.gov.au/people/rolls/R1966008/</u>, (December 16 2016).

issues that the SRWSC was contending with. During his testimony to the McClelland Commission, East made the following observations regarding the SRWSC's financial situation:

It might be pointed out that when a State instrumentality is under direct Ministerial control, the power of ratepayers to oppose any upward revision of rates and charges to meet altering conditions is very great indeed, and although some increase have been made from time to time during the war and post-war years of rising costs (and prices) these increases have not been proportionate to the increases in actual costs.⁵²⁷

SRWSC Chairman Richard Horsfield was similarly concerned about the financial influence of the government, although he was somewhat more forthright in suggesting that the McClelland commission was complicit in what he saw as a political attempt to further decrease the rates and charges levied by the SRWSC. As a result, he attempted to impress upon the commissioners that existing water charges should be retained: 'Once you get the charges down you can never get them up again. There would be all kinds of pressure brought to bear against it.'⁵²⁸ An examination of the accumulation of arrears on rates and water charges levied on all SRWSC districts, revealed the reasons for Horsfield's concerns. Between 1921 and 1929 the arrears on rates had increased by approximately 11 per cent with £341,000 uncollected. The depression had caused a significant deterioration of the financial circumstances of settlers, resulting in a further increase in the accumulation of arrears amounting to nearly 22 per cent or £718,000.⁵²⁹ However, the McClelland Commission suggested that while the Depression

⁵²⁷ Royal Commission into the Expediency of Amending the Water Act 1928 and Other Matters, (Fourth Report), Parliamentary Papers (no. 2), (Melbourne, Government Printer, 1937), 12.

⁵²⁸ 'Water supply too cheap', Argus (Melbourne), February 7 1936, 3.

⁵²⁹ Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928, (First Report), Parliamentary Paper (no.6), (Melbourne, Government Printer, 1936), 6.

was 'a cause of difficulty outside of the control of the State Rivers and Water Supply Commission,' in many instances it was seen to be aggravated by further 'difficulties associated directly with the water supply system.'⁵³⁰ In particular, the allotment of water rights in excess of requirements was found to be a substantial burden for irrigators in closely settled districts, and in the McClelland Commission's view, was directly attributable to the system of uniform rights and compulsory charges.

Uniform rights over differential rating

The uniform water right per unit of measure had been introduced as the standard mechanism for allocating water rights to irrigated estates following the passage of the Water Act 1909. Mead had advocated for the amendment on the basis that the development of irrigation and closer settlement had not expanded sufficiently (in many areas rural populations had declined) following the 1905 Act. He made it clear at the time that he did not regard irrigation works as "money making enterprises" and intended to achieve a faster settlement uptake through altering the compulsory charge, with the intention that it would progressively decrease the cost of water to settlers as the expansion of land settlement increased.⁵³¹ In this regard, the charge "per unit of volume of water supplied" deviated from Swinburne's differential rating and refocused administration on levying a uniform charge for water within each of the irrigation districts based on the determination of volume by the SRWSC. Swinburne had intended that as the system progressed, the water rate would become differential according to the suitability of individual holdings for irrigation based on a process of classification. As Swinburne considered that 'some lands are better suited for irrigation than others, and it is intended that all these lands

⁵³⁰ Ibid, 7.

⁵³¹ 'Irrigation policy – speech by Mr. Elwood Mead', Age (Melbourne), March 2 1908, 9.

shall be properly classified, and rated according to their suitability for irrigation.⁵³² In its consideration of the evidence from the irrigators, the McClelland Commission came to the conclusion that uniform water rights according to a fixed standard of allocation were inflexible and in many areas responsible for allocations well in excess of settlers' requirements. They noted, 'in many instances, water users are required to pay more for more water that they can use profitably, having regard to the varying natures and capacities of the lands within each district.⁵³³ The witness evidence given by settlers to the commission confirmed that there were significant flaws in the volumetric rights system. In particular, it was suggested that many settlers would see better results if their water allocations were reduced to 30 per cent of the existing allocation.⁵³⁴ The allocation of water rights in excess of requirements had compounded the costs to civilian and soldier settlers and this was of specific concern to the McClelland commission.

In light of these failings, the first report recommended alleviating settlers' costs through the reduction of debts for all water users through recasting accounts in arrears and crediting all interest charges for the period 1 July 1929 to 30 June 1936. All payments made in the period were applied as a reduction against existing water rates and charges.⁵³⁵ Civilian and soldier settlers received similar relief through adjustments to arrears sanctioned by the Closer Settlement Commission. However, once the McClelland Commission moved on from settlers' arrears, its focus promptly shifted to matters central to the factors that caused the accumulation

⁵³² George Swinburne, VPD (Assembly), September 7 1904, 1424.

⁵³³ Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928, (First Report), Parliamentary Paper (no.6), (Melbourne, Government Printer, 1936), 8.

⁵³⁴ 'Water for irrigation', Age (Melbourne), June 5 1936, 17.

⁵³⁵ Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928, (First Report), Parliamentary Paper (no.6), (Melbourne, Government Printer, 1936), 11-12.

of those arrears. The commissioners believed that finding an adequate solution would see beneficial results 'not only directly to the water users, but indirectly to the future revenues of the State Rivers and Water Supply Commission.⁵³⁶

The second report – SRWSC organisation and operations

The McClelland Commission's second report into the administrative and executive control of the SRWSC and whether it operated in an "efficient and economical manner" raised a number of concerns regarding the perceived lack of accountability between three commissioners, two of whom were engineers (Horsfield and East) and the third being responsible for financial matters (Trevean). Lacking of an adequate hierarchy the SRWSC had no means of effectively partitioning its decision making processes often leading to a blurring of accountability within the organisational structure. ⁵³⁷ These matters were further complicated by the limited terms of appointment for commissioners, leaving them susceptible to political pressure; the McClelland Commission suggested that the combined effect of this was damaging to 'continuity of policy and administration and on the operations of an undertaking in which breadth of vision and farsightedness are essential.'⁵³⁸

538 Ibid.

⁵³⁶ Ibid, 12.

⁵³⁷ Ibid, 5-7.

[Figure ommitted for copyright purposes. Refer to 'Royal Commission into the Expediency of Amending the Water Act 1928', (Second Report), Parliamentary Paper (no.11), 1936.]

Figure 4.6: Structure of SRWSC in 1936 – Source: Second Report of the Royal Commission into Amending the Water Act 1928 and Other Matters⁵³⁹

The McClelland Commission further contended that SRWSC investigations into the establishment of new works were 'hastily carried out...unduly restricted in scope and outlook, and have tended to concentrate upon engineering aspects rather than upon economic and financial considerations.⁵⁴⁰ These attempts to "hasten rural development" had produced heavy avoidable losses to the state in the absence of an adequate process of preliminary investigation. Pressure for expediency in development from the executive government continually

⁵³⁹ Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928, (Second Report), Parliamentary Paper (no.11), (Melbourne, Government Printer, 1936).

⁵⁴⁰ Ibid, 8.

compromised the SRWSC's appraisal of irrigation development through pressuring the advancement of specific projects, and the result was found to be a number of poorly designed and executed projects that yielded relatively small benefits in terms of development at a relatively high cost to the state. Moreover, the SRWSC had routinely charged the ongoing operating expenses associated with irrigation works to loan and capital expenditure accounts which heavily distorted its financial statements. Its annual reports represented a maze of misappropriated expenses. One such example appears in the 1934-1935 SRWSC Annual Report where more than 30 per cent of the total statement of loan liability was entered as "uncompleted or unallotted works" which remained to be charged to applicable districts.⁵⁴¹ This was despite the fact that more than half of the works listed had actually been completed. On the basis of these and other discrepancies, the McClelland Commission concluded that the financial policy of the SRWSC was unashamedly controlled by expediency.

Ultimately, the deficiencies highlighted in the McClelland Commission's second report were indicative of a myopic view of agricultural development that was politically driven, although it was equally the product of entrenched practices operating within the SRWSC. The commissioners put it plainly: 'Many of the defects described in this Report have been...perpetuated under the existing administrative and executive control.'⁵⁴² The McClelland Commission recommended that the SRWSC Chairman should be the only full-time appointee selected on the basis of business, financial and administrative qualifications and experience. The appointment term of the Chairman would also be extended out to a period not exceeding seven years in an attempt to limit political interference. All remaining roles were to be divided

⁵⁴¹ Victoria, State Rivers and Water Supply Commission, Thirtieth Annual Report 1934-35, Parliamentary Paper (no.18), (Melbourne, 1935), 41.

⁵⁴² Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928, (Second Report), Parliamentary Paper (no.11), (Melbourne, Government Printer, 1936), 28.

among three part-time commissioners with appropriate qualifications in administering engineering, irrigation, economic and financial matters.⁵⁴³ A week prior to the release of the McClelland Commission's second report the SRWSC received the unfortunate news of the death of its Chairman, Richard Horsfield due to complications arising from surgery for appendicitis. Horsfield was 69 years of age at the time of his death, and had been associated with the SRWSC for nearly 30 years (including four years as Chairman). His achievements at the SRWSC included important contributions to engineering works on the Hume Dam and Yarrawonga Weir.⁵⁴⁴ Ronald East was later announced as Horsfield's successor and the youngest Chairman (37 years) in the history of the SRWSC.

The final report – Evaluating the objectives of rural water supply

The fourth and final report of the McClelland Commission placed a great deal of emphasis on the historical significance of water supply development in Victoria and pointed specifically to the 1905 Act as a clear indication of an intention to bring irrigation upon a sound economic footing. The commissioners noted that the situation as they had found it was entirely contrary to this starting point.

From the fact that the capital investment in rural water supply undertakings has been rapidly and substantially increased throughout the past thirty years, it may be assumed that *all Governments* of the State during that period have been impressed with the importance of using the water resources of the State to promote rural development in the national interest.' [Emphasis Added]⁵⁴⁵

⁵⁴³ Ibid.

⁵⁴⁴ Albury Banner and Wodonga Express (NSW), October 16 1936, 46, Retrieved: <u>http://nla.gov.au/ nla.news-page10891343</u>, (January 12 2015).

⁵⁴⁵ Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928 and Other Matters, (Fourth Report), Parliamentary Papers (no.2), (Melbourne, Government Printer, 1937), 14.

In the McClelland Commission's view, the significant expansions of the system had undermined the central economic principle that the rates and charges levied should meet all operating and capital costs. While provisions were made to legally enshrine the economic return objective through the application of the general rate for stock and domestic supply and the compulsory irrigation charge, the commissioners found that this "central operating principle" of the Act had not been adequately implemented at any time since the SRWSC was constituted:

The function of the State was regarded as being that of an enterpriser, prepared to take the initial risks involved in such a large-scale undertaking, and to wait for some years for an adequate return on the capital investment. Eventually, however, it was hoped, the State would recover the whole of its expenditure, through the success of the irrigation settlements and the accompanying growth of revenue. The present-day attitude is entirely different. It has apparently been assumed for many years that a continuing financial loss to the State is unavoidable, and should be regarded as part of the price paid for rural development.⁵⁴⁶

On this point the commissioners' advice was explicit. They contended that the "indirect benefits" of development had been purchased at an "excessive direct cost". Continued extensions of the irrigation system should only be undertaken "with extreme caution", and only in circumstances where a thorough assessment of the economic and financial aspects warranted the extension. '*It should not be lightly assumed that increased production and population in the low rainfall areas constitute national benefits which justify unlimited financial cost.*' [*Emphasis Added*]⁵⁴⁷

⁵⁴⁶ Ibid, 14-15.

⁵⁴⁷ Ibid, 15.

Despite this critical appraisal of irrigated agricultural development, the commissioners also maintained that the previous losses were no longer recoverable. Changes to the system of rates and charges were required, and the commission proposed to replace the general rate with a service charge. In order to circumvent the continued accumulation of arrears particularly in the form of accrued interest the commissioners further recommended the adjustment of capital chargeable to each district to a figure representing 'the estimated surplus of revenue over expenditure on maintenance, water distribution, depreciation and management chargeable to the district.⁵⁴⁸ In this regard, the chargeable capital would solely reflect the cost of maintaining and operating existing works. All remaining capital expenditure would be transferred to a "Capital expenditure borne by the State" account.⁵⁴⁹ Future expenditure was also recommended to adhere to this assessment. In circumstances where districts would be unable to raise sufficient revenue to cover operational and maintenance costs, the whole of the capital expenditure could then be transferred to the state account. In such "special case" districts future revenue deficiencies would be credited to a "revenue expenditure chargeable to the State" account.⁵⁵⁰ In effect, the recommendations amounted to a full transfer of the financial liability of all headworks and distributary works directly to the State.

Water rights – Moral rights

The McClelland Commission's findings also revealed an uncomfortable relationship between the financial realities of rural water administration and how an unyielding developmental ethos had driven excessive financial losses. 'That policy...has been maintained at an enormous financial cost. Whether the indirect national advantages have been commensurate with this cost

⁵⁴⁸ Ibid, 52.

⁵⁴⁹ Ibid.

⁵⁵⁰ Ibid.

is open to question, *but the extent of the losses now disclosed suggests that there are definite limitations to the process of development by this means.*' [*Emphasis Added*]⁵⁵¹ The commissioners determined that the rigidity of the related water rights provisions in the Water Act compounded these issues, as there was 'no account of varying degrees of suitability for irrigated culture of the lands within a district.'⁵⁵² Where an irrigator's allocated water right exceeded requirements the full allocation was typically used, causing serious deterioration to their lands. However, upon investigation it was also found that in many instances irrigators had come to view their legal rights to water under the Water Act as "moral rights" due to the longstanding policy which had encouraged dependence on the continuity of water supply.

Many witnesses before the McClelland Commission had emphasised the significant value of water rights as an "assurance of security of supply", and while the commission accepted the reasons for this view, they did not entirely endorse it. However, the commission did note: 'In Victoria...the water is the property of the State, and it is inconceivable that any Government or Department would ever take any action which would prejudice existing legal or moral rights in this regard.'⁵⁵³ This comment not only directly acknowledged a general conception of water rights as the "property" of the State, but it further indicated that the irrigators' water right had also come to be perceived as a form of property. While the McClelland Commission contended that the principal objective for establishing the water rights system (irrigated development) had been satisfied, they also noted that a central concern was to preserve the "moral rights" of irrigators while the existing system of legal rights was supplanted: 'The stage has been passed where it is desirable or necessary to force the development of irrigation in established districts,

⁵⁵¹ Ibid, 14.

553 Ibid, 23.

⁵⁵² Ibid, 24.

and it is now necessary to consider whether the water rights system, having served its purpose, may now be superseded.⁵⁵⁴

Rights or contracts?

The McClelland Commission settled on a system of voluntary contracts as being the system most likely to produce the desired economic results without compromising the established irrigators. The guiding principle of the voluntary contracts system was to ensure that the existing "moral rights" of irrigators were recognised (where desired) through granting a contract for a quantity of water equal to their present allocations.⁵⁵⁵ This right would pass to irrigators in a form that would place the primary responsibility on them to "specify" their own requirements. Where irrigators were in a position to further develop their properties through increased irrigation they would be entitled increase the quantity of water nominated in the contract. In order to circumvent any speculation on climatic conditions irrigators would be required to enter contracts for a period of seven years or greater and the purchase of additional water over the contracted quantity would attract a 50 per cent increased cost.⁵⁵⁶ The commission argued that the proposed voluntary contracts would thereby shift rural water administration towards the development of irrigated agriculture in existing irrigation areas only.

A contract-based system appealed to the commission primarily on the basis that it preserved the most effective components of the existing system of allocation, maintained the nexus between water rights and land ownership and promoted greater flexibility in terms of water

556 Ibid, 25.

⁵⁵⁴ Ibid, 24.

⁵⁵⁵ Ibid.

use. Voluntary contracts also presented an efficient means of curtailing the wastage identified by the McClelland Commission. Encouraging irrigators to nominate their usage needs through a voluntary contract would force them to consider the required volume of water necessary for their land enabling the direct cost of water supply to be passed to the individual irrigator. The proposed contracts system was additionally focused on achieving improved outcomes for irrigators through expecting them to pay only for water supplied in years where low rainfall precluded the SRWSC from supplying contracted quantities.⁵⁵⁷



Figure 4.7: "Abolition of water rights system" Source: Argus (Melbourne)⁵⁵⁸

⁵⁵⁷ Ibid, 26.

⁵⁵⁸ Argus (Melbourne), April 17 1937, 23, Retrieved: <u>http://nla.gov.au/nla.news-article11057658</u>, (December 11 2013).

A mixed reception

The final report of the McClelland Commission had produced mixed reactions among irrigator groups and other concerned interests. A conference of irrigation representatives convened in Bendigo by the UCP soon after the report was released, and despite some opposition, it endorsed many of the recommendations including agreement by a large majority with the principle of substituting existing water rights with the proposed system of voluntary contracts.⁵⁵⁹ The support of water users at the conference reflected the perception among some groups that the contract system would see irrigation water supply move towards a more "business-like" basis, with irrigators afforded a greater role in determining their own water use requirements. The *Maffra-Sale Irrigation League* similarly praised the measure as a statesmanlike solution: 'If we, as irrigators, with experience over a number of years, cannot make up our minds as to what amount of water we will require, then we don't know our job, and don't deserve to have a say in it! We are now to be given a say.'⁵⁶⁰

In contrast, influential irrigators' groups such as the *Northern Irrigators' Defence League*, the *Primary Producers' Restoration League* and many northern district leagues including groups from Cohuna, Kerang and Rochester expressed concerns that voluntary contracts would negatively impact their land values, with many in favour of the retention of existing water rights. Members of the influential *Rodney Irrigators' League* advocated for the introduction of an Appeals Board to consider individual cases where water rights were considered to be excessive to requirements, and simultaneously argued that more water was "wanted".⁵⁶¹ By

⁵⁵⁹ 'Noisy scenes during water conference', Argus (Melbourne), June 9 1937, 7.

⁵⁶⁰ *Gippsland Times* (Sale), June 14 1937, 4, Retrieved: <u>http://nla.gov.au/nla.news-article63018690</u>, (December 14 2013).

⁵⁶¹ 'Irrigation Matters Discussed – More Water Wanted', Weekly Times (Melbourne), July 31 1937, 21.

August of that year a series of meetings held by the northern irrigators' groups resolved to send deputations to the Minister of Water Supply. However, based on Dunstan's previous statements on the issue it appeared that most were likely aware of the position his government would adopt.

Summary

The McClelland Commission substantially moved beyond the sphere of inquiry that the Dunstan government had intended, echoing the notion that 'royal commissions often exercise a level of independence that runs counter to executive control.⁵⁶² Its acknowledgement of the financial, administrative and structural problems that had developed within the governance of rural water supply, and the specific focus on the cause of the ongoing economic loss to the state, highlighted inherent problems related to a continued focus on development. According to the commission's view, the practical responsibility for the economic losses rested with this policy of "forced development". In this regard, the commissioners noted that the critical role performed by the SRWSC was regularly compromised by political pressure from the executive government. While the commission conceded that the vast operating deficits and capital liability of the SRWSC could not continue to be carried forward (and that the majority of future expenditure would be similarly deferred), they were equally certain that persisting with the expansion irrigated agriculture would only produce a repeat of the circumstances they were addressing. As a result, the McClelland Commission acknowledged the emerging political focus on the indirect benefits of irrigation, which they suggested had come at an "excessive direct cost". In particular, the compulsory water right and the uniform charge according to a fixed allocation of water was found to severely impact on the ability of settlers to meet their financial obligations, and was viewed by the commission as an administrative tool associated

⁵⁶² Delacorn, Royal Commissions in Victoria, 46.

with advancing irrigated development. As a result, the commission recommended replacing the water rights system with a system of voluntary contracts, although they also indicated their support for maintaining the nexus between water and land in order to protect what irrigators regarded as their "moral rights" to a continuous supply of water. In the view of the McClelland Commission the existing system of water rights had become wholly based on achieving the developmental objective and provision needed to be made within the Water Act to preserve the fundamental foundations of the water rights system while simultaneously encouraging water use that more closely reflected the requirements of farmers. To this end, they further recommended that extreme caution be taken in the instance of further extensions of the existing supply systems.

The Dunstan Government's Response

While the McClelland Commission had endorsed the alleviation of settlers' debts and the transfer of the SRWSC's capital liability to the State, it had also challenged the notion that further expansion would produce a level of development capable of delivering a direct or indirect economic return to the State. To this end, the Argus argued that 'the apportionment of the burden between the community and the water-user...should be made on a basis which has some foundation in justice and political principle, and the honouring of obligations should be insisted upon.'⁵⁶³ Similarly, the attention drawn to the organisational deficiencies that exposed the SRWSC to political manipulation, highlighted the fact that executive government had consistently prevented water supply rates and charges from even covering irrigation's operating expenses. Dunstan's government had previously proposed to wind up the SRWSC and return

⁵⁶³ 'Editorial – irrigation finance', Argus (Melbourne), October 22 1936, 10.

to centralised administration within the Department of Water Supply,⁵⁶⁴ although the government later conceded that the opportunity had passed.

The preparation of amending legislation was substantially delayed by the government's attempts to resolve a parliamentary deadlock between the government in the Legislative Assembly and the Legislative Council where the UAP held a majority. Half the Legislative Council had faced an election in June and the question of upper house reform largely occupied public debate, offering little incentive for the government to proceed with other agendas. Dunstan subsequently dissolved the Legislative Assembly in a further attempt to extract additional political capital from the upper house reform issue. To this end, Minister of water supply, Francis Old, prepared a relatively short Bill centred on adopting the McClelland Commission's financial recommendations. This Bill was reflective of the government's interest in continuing the expansion of irrigated development at the expense of any economic return to the State.

Committed to "the cause" – The contribution of Francis Old

The Parliament had remained in recess throughout the first half of 1937 while Dunstan travelled to attend the coronation of King George VI.⁵⁶⁵ The latter half of the year was occupied by a legislative deadlock between the upper and lower houses of Parliament prior to a Legislative Council election in June and a rushed Legislative Assembly election in October. As a result, the earliest specific mention of the UCP's policy for rural water supply came from the Minister for water supply and Acting Premier, Francis Old (Figure 4.8 below), in the days before the

⁵⁶⁴ Horsham Times, November 3 1936, 7, Retrieved: <u>http://nla.gov.au/nla.news-article74611960</u>, (December 14 2013).

⁵⁶⁵ Lamb, Of Measures and Men, 206-212.

Council election, when he announced that the government would prepare new legislation that would include the "careful study" of the McClelland Commission's reports.⁵⁶⁶ Shortly after the election, Old met with a deputation of the *Rodney Irrigation League* (with the endorsement of several irrigators groups), and came away "favourably impressed" with their proposals to retain the existing water rights system and introduce district Appeals Boards.⁵⁶⁷

[Figure ommitted for copyright purposes. Refer to Houston, 'Ministers of Water Supply in

Victoria', 61.]

Figure 4.8: Photograph of Francis Old – Source: L G Houston 'Ministers of Water Supply in Victoria'⁵⁶⁸

⁵⁶⁶ 'Water supply – government's major measure' Age (Melbourne), June 10 1937, 12.

⁵⁶⁷ 'Irrigators at Rodney – water rights', *Argus* (Melbourne), August 12 1937, 13.

⁵⁶⁸ Houston, Ministers of Water Supply, 61.

Francis Edward Old (1875-1950) was a UCP stalwart and a longstanding member of the Assembly. He was born in the northern Victorian town of Dingee and had been raised in Victoria's land selected regions before eventually selecting land himself on the Wakool River in New South Wales in 1907.⁵⁶⁹ Old was consistently active in rural politics and an "ardent advocate of irrigation" having been an executive member of the Farmers' and Settlers' Association of New South Wales before returning to Victoria in 1919 and joining the Legislative Assembly as the member for Swan Hill. By 1922 he had become deputy parliamentary leader of the VFU.⁵⁷⁰ For Old, becoming the Minister of water supply reflected the various connections to irrigation throughout his adult life and his childhood, with the latter influence clearly having an immense impact on him:

My late father, Mr. T. S. Old, then of Dingee, north of Bendigo, was a member of Mr. McColl's water supply committee, and when the smallest of small boys I listened to animated discussions on the wonderful benefits which would accrue as the result of the application of water to the dry plains of northern Victoria.⁵⁷¹

As Minister for water supply, Old's position on irrigated agricultural development was clear: 'I have no hesitation in saying that there are yet districts in the State capable of being served with water, and I think it advantageous, when water supply is readily available, that extensions should be made to those districts as circumstances warrant it.'⁵⁷² Old suggested that plans to increase water storages in some irrigation districts would place closer and soldier settlers on a

⁵⁶⁹ Ibid.

⁵⁷⁰ Brian Costar, 'Old, Francis Edward (1875–1950)', Australian Dictionary of Biography, (Canberra, 1988), Retrieved: <u>http://adb.anu.edu.au/biography/old-francis-edward-7898/text13733</u>, (January 12 2014).

⁵⁷¹ Francis Old, VPD (Assembly), November 23 1937, 834.

⁵⁷² Francis Old, VPD (Assembly), October 30 1935, 4009.

basis that would allow them to "meet all their commitments".⁵⁷³ This was in keeping with the majority of statements that intended to present the government's approach in broad strokes until a final position on how to respond to the McClelland Commission's report was reached. Furthermore, Dunstan was keen to exploit any remaining dissatisfaction with the "obstructionist" Legislative Council through calling an Assembly election.

The amendments 1937

Upon returning to Victoria Dunstan promptly called the election for the Assembly, which saw the UCP maintain its numbers while the UAP opposition lost two seats to Labor and one to an independent.⁵⁷⁴ With the government assured of its position, Old prepared to introduce the new Bill to the parliament with the intention of pushing it through before the end of the year. Dunstan declared that the government intended 'to effect many of the recommendations submitted by the Royal Commission on Water Supply,⁵⁷⁵ but offered no detail regarding the extent to which the recommendations would be adopted. However, Dunstan made a point of noting the government's acceptance "in full" of the proposed changes regarding financial administration and reaffirmed his support for changes to the SRWSC's rates and charges. In the Assembly, Old presented a Bill that unmistakably embodied Dunstan's commitments to legislating the financial recommendations. After 18 months, 4 reports to the parliament totalling 142 pages and 88 individual recommendations, the government's Bill contained just 15 clauses (12 of which directly pertained to transferring the capital liability and other financial matters).

⁵⁷³ *Camperdown Chronicle*, September 16 1937, 5, Retrieved: <u>http://nla.gov.au/nla.news-article28319355</u>, (December 15 2013).

⁵⁷⁴ Lamb, Of Measures and Men, 212.

⁵⁷⁵ 'Premier opens C.P. campaign', Argus (Melbourne), September 14 1937, 6.

Old's second reading speech emphasised that the high costs of maintaining irrigation's capital charges were an expected consequence of development, and that the state was obliged to perform the fundamental role in advancing irrigation. 'This burden...would be far too great for the primary producers alone to carry.⁵⁷⁶ In this regard, he maintained that the policy was one that required the people to accept a "fairly large proportion" of the costs. The government focused on completing the transfer of capital liabilities post-haste and within months approximately £17 million in liabilities for headworks and distributary works had been transferred by order of the Executive Council. New powers vested in the Treasurer (in consultation with the SRWSC) also enabled water rates and charges to be "excused or remitted" in full wherever they were deemed to be unrecoverable.⁵⁷⁷ These powers were almost immediately applied across the Mallee districts. The government argued it would not proceed with the proposed system of voluntary contracts on the basis that many of the irrigators' groups had urged for the retention of the existing water rights system.⁵⁷⁸ However, Dunstan and Old were well aware that compulsory volumetric water rights were centrally connected to the development of new estates (in effect, the area of land capable of irrigation was directly proportionate to the corresponding area of water required to water the land - under the SRWSC's own formula – and thereby directly influenced the size of required storages).

The preservation of the water rights system in accordance with the desires of northern irrigators was accompanied by the introduction of a district appeals board previously advocated by the *Rodney Irrigators' League* (although owing to continuing seasons of low rainfall, when the

⁵⁷⁶ Francis Old, VPD (Assembly), November 23 1937, 835.

⁵⁷⁷ Water Act 1937 (Vic), s 3.

⁵⁷⁸ Francis Old, VPD (Assembly), November 23 1937, 839.

appeals board was finally established it only received appeals for increased allocations).⁵⁷⁹ Dunstan's government were not at all swayed by the McClelland commissions' sobering assessment of irrigation development in Victoria. Rather, Old and Dunstan were insisting upon the continuation of development with a strong focus on increasing the storage and distribution capabilities of the irrigation supply network. The Bill passed with the support of Labor – who were keeping Dunstan's minority government in power – and its leader John Cain (Snr) who regarded the deficits attached to rural water supply as less of a concern than the "admirable results" of the SRWSC in promoting agricultural development. 'I look upon irrigation as an insurance policy, not so much from the point of view of primary producers, who are directly interested, but from the viewpoint of the general public, because it provides some guarantee that…the community generally will not suffer from an extensive drought which might otherwise destroy thousands of head of stock.'⁵⁸⁰

There's "no escape"

Dunstan's 1938 Budget speech offered a clear indication of the trajectory rural water supply was to follow throughout the remainder of his time in office (and beyond). He reported that the capital liability of approximately 160 separate districts administered by the SRWSC had been adjusted in accordance with the *Water Act 1937*. However, the persistence of drought conditions throughout the year had stretched supplies in some parts of the state, and Dunstan argued that this necessitated the construction of additional storages. A few days later he publicly stated that there was "no escape" from the needs of the State in regards to the continuation of increases in expenditure that were a necessity to the State.

⁵⁷⁹ Powell, Garden State, 194.

⁵⁸⁰ John Cain (Snr), VPD (Assembly), November 30 1937, 1021.

Finances in connection with land settlement and irrigation schemes...had a serious effect on the budgetary position, but as an offset it had to be realized that *these activities were of paramount importance, as they involved the vital question of the development of the State, and they therefore had not only to be maintained, but even extended. These indirect benefits could not, of course, be included in the budget.* [*Emphasis Added*]⁵⁸¹

One year earlier, SRWSC Chairman, Ronald East offered a view of indirect benefits that confirmed the government and Victoria's largest developmental authority had synchronised in their intentions concerning the post-war financing of "developmental works".

The increased business due to irrigation development results inevitably in increased population in the nearby country towns and in the metropolitan area, with consequent very great increases in total values of business and residential lands in these centres. The real profits resulting from irrigation development lie, not in the sale of water, but in the increases in business activities and in land values resulting from that development.⁵⁸²

Movement towards a greater apportionment of costs to the State continued until 1944 when the entire capital cost for irrigation works became the sole responsibility of the State through further amendments to the Water Act.⁵⁸³ That Act was brought down by then Minister of Water Supply, John McDonald,⁵⁸⁴ arguing that the affordability of irrigation to the settler was

⁵⁸¹ Albert Dunstan, VPD (Assembly), August 3 1938, 628.

⁵⁸² Victoria, Parliament, The Parliamentary Public Works Committee on The desirability and practicability of constructing a storage reservoir and any other necessary works to conserve the flow of the Avoca River to improve water supplies for domestic and stock and irrigation purposes to lands along the Stream, Parliamentary Paper, (Melbourne, Government Printer, 1943), 20.

⁵⁸³ Houston, Ministers of Water Supply, 67.

⁵⁸⁴ John Gladstone Black McDonald (1898 – 1977) had emigrated from Scotland and became a fruit grower on in the Shepparton district. He was elected to the Legislative Assembly in 1936 as the member for Goulburn Valley, and later became leader of the Country Party (1845), and Premier (1950-52). McDonald also played a significant role in the development and commencement of the Eildon Reservoir (second stage). See: Houston, *Ministers of Water Supply*, 65-68.

paramount, so as to produce a "balanced economy".⁵⁸⁵ This Act and McDonald's accompanying comments essentially confirmed that maximising the indirect benefits of irrigation while turning a blind eye to its costs had solidified as the central justification for maintaining the objective of irrigated development.

Summary

It was clear by the McClelland Commission's final report that the commissioners considered that a turning point in irrigated development had been reached.⁵⁸⁶ However, the Dunstan government's response to the report adhered to a singular notion of irrigated development that reflected entrenched perceptions that irrigation's indirect benefits effectively offset its costs. To this end, the passing of the 1937 Water Act endorsed this position through transferring the bulk of irrigation's capital liability to the State. Ultimately, the whole capital cost of irrigation was transferred to the State on the basis that irrigated development was fundamental to the State's *national wealth*. The moves to formalise the government's position on irrigated development were the result of the combined efforts of Dunstan and his water supply minister Old, both of whom were seized of the belief that irrigation's losses were an unavoidable reality in the pursuit of the expansion of rural water storage and supply. Ensuring the continuation of the existing system of compulsory volumetric water rights was central to maintaining this expansion. This view echoed the collective attitude of the northern irrigation leagues who were dependent on the provision of irrigation under the existing system and equally possessed of the view that irrigators should not be expected to meet the costs of development.

⁵⁸⁵ John McDonald, VPD (Assembly), August 22 1944, 519.

⁵⁸⁶ Powell, Garden State, 194-196.

Preferences and Path Dependence in Rural Water Supply Governance

Collectively, the McClelland Commission's reports exposed considerable flaws in the government's approach to irrigated development, revealed concerns regarding the SRWSC's independence from the executive government, and highlighted the most pressing constraints shaping the governance of rural water supply. Significant expansions in closer and soldier settlement schemes, the overarching effects of the depression and the imposition of the Premier's Plan were further influential factors during this period. However, the negative impacts of unrestrained expansion and low commodity prices greatly impacted on settlers' prospects and largely contributed to circumstances that preceded the formation of the McClelland Commission. The amendments to the Water Act by the Dunstan government in the aftermath of the enquiry are a demonstration of factors that incentivised a persistent government emphasis (that had emerged over the preceding decades) on irrigated development at the expense of an economic return to the State; specifically, the government's focus on irrigation's *indirect benefits* as the central justification for shifting the capital costs and engaging in continued expansion. The final section of this chapter considers the evolution of policy as a consequence of path dependent processes resulting from an accumulation of decisions over time; and, the effect these processes have in shaping political actors' preferences through existing conventions and the cultural processing of information, providing a framework that contextualises government decisions. This approach further indicates how path dependent processes and subsequent preference formation associated with irrigated development explains the incremental choices that gradually alter the interpretation, meaning and implementation of policy objectives.

The accumulation of decisions – path dependent processes and self-reinforcing trajectories The notion that policy decisions "accumulate over time" is advanced as the central means to explaining the nature of path dependent processes within political institutions, and emphasises an understanding of policymaking as an "unfolding historical process".⁵⁸⁷ Kay has noted that such processes may be understood as a form of policy "accretion" which operates in a restrictive manner through limiting the options available to future policymakers.⁵⁸⁸ While it does not preclude the possibility of additional choice points eventuating, 'the entrenchments of certain institutional arrangements obstruct an easy reversal of the initial choice.'⁵⁸⁹ The focus of this chapter is principally on the prioritisation of irrigated development at the expense of economic return. Examining the accumulation of these decisions over an extended period (as demonstrated in part one of this chapter), posits a view of a policy pathway where the incentive to correct the emerging imbalance between these competing objectives is gradually diminished. The significance of this process lies not only in the way that it shapes institutional perceptions of policy success and failure, but in the steady building of momentum behind the preferred path while alternative trajectories appear more and more implausible.⁵⁹⁰

Essentially, path dependent processes display two fundamental properties. First, they are temporal processes. As Immergut notes, the focus on path dependent processes 'is a specific case of a more general focus on the importance of "timing" and "sequence" in the analysis of

⁵⁸⁷ Margaret Weir and Theda Skocpol, 'State Structures and Social Keynesianism – Responses to the Great Depression in Sweden and the United States', *International Journal of Comparative Sociology*, 24(1-2) (1983), 7.

⁵⁸⁸ Kay, Critique of the use of Path Dependency, 558.

⁵⁸⁹ Margaret Levi, 'A Model, a Method and a Map: Rational Choice in Comparative and Historical Analysis', in Mark Irving Lichbach and Alan S. Zuckerman, *Comparative Politics – Rationality, Culture and Structure*, (New York, 1997), 28.

⁵⁹⁰ Paul Pierson, 'When Effect Becomes Cause: Policy Feedback and Political Change', *World Politics*, 45(4) (1993), 609.

politics.⁵⁹¹ In this respect, exploring the temporal order of events offers an insight into significant political interactions that have "unfolded in time".⁵⁹² Secondly, path dependent processes are characterised by self-reinforcing trajectories of development. That is, decisions that emerge from political institutions will exhibit a high tendency to result in policy feedback, producing a limiting effect on future decisions. It is in recognising and examining these self-reinforcing processes that an understanding of how and why political institutions persist can be revealed. Pierson, in discussing Karl's analysis of the self-reinforcing trajectory of oil resources development in "petro-states", specifically notes that the "problematic" developmental paths observed played a fundamental role in shaping 'the structure of organised interests and, crucially, the state itself.⁵⁹³ To this end, Karl's study emphasises the pivotal role institutions perform in the formation of the policy preferences of political actors.⁵⁹⁴

Policy preferences

Pierson suggests that modern political analysis has often tended to overstate the preferences of powerful actors involved in policy debates, while little emphasis is given to how or why those particular preferences have become integral to the actor. He argues that as a result, such "functionalist" interpretations typically have the causality altogether backward. 'Rather than these powerful actors generating the policy, the policy arrangements may have played a substantial role in generating the properties of the actors.'⁵⁹⁵ This view of "endogenous

⁵⁹¹ Ellen Immergut, 'Historical-Institutionalism in Political Science and the Problem of Change', in Andreas Wimmer and Reinhart Kössler, *Understanding Change: Models, Methodologies, and Metaphors*, (New York, 2006), 242.

⁵⁹² Paul Pierson, *Politics in Time*, 62.

⁵⁹³ Ibid, 65.

⁵⁹⁴ Terry Lynn Karl, *The Paradox of Plenty: Oil Booms and Petro-States*, (Los Angeles, 1997), 11.

⁵⁹⁵ Paul Pierson, 'The Study of Policy Development', *The Journal of Policy History*, 17(1) (2005), 45.

preferences" emphasises the role of the institutional environment in the development of actors' preferences as a self-reinforcing mechanism and a product of policy feedback. Druckman and Lupia describe the formation of political actors' preferences as an 'internal process by which individuals convert information from their environment into evaluations of political objects.⁵⁹⁶ Accepting that within political institutions actors are largely subject to the influence of the institutional environment (and the formal and informal rules it embodies), the formation of preferences can be seen as a product of actors engaging in the cultural processing of information through decision making. This perspective accords with Wildavsky's contention that preference formation is largely endogenous: 'Preferences in regard to political objects are not external to political life; on the contrary, they constitute the very internal essence, the quintessence of politics: the construction and reconstruction of our lives together.⁵⁹⁷ Moreover, preference formation can direct emphasis to the influence of policy history over the construction of preferences within political institutions.

The historical significance of previous policies are a significant aspect in the construction of actors' preferences. 'National histories are highly salient to preference formation...Some actions can be presented as a radical break with the past, but even these need to be linked to a narrative of past failures. More often, courses of action are chosen with an eye to how well they fit into national narratives of previous success.'⁵⁹⁸ The formation of preferences in this way, offers an understanding of the construction of policy positions and rhetoric from the Dunstan

⁵⁹⁶ Druckman and Lupia, *Preference Formation*, 8.

⁵⁹⁷ Aaron Wildavsky, Choosing Preferences by Constructing Institutions: A Cultural Theory of Preference Formation', The American Political Science Review, 81(1) (1987), 5; see also: March and Olsen, *Organizational Factors in Political Life*, 739.

⁵⁹⁸ Peter A. Hall, 'Preference Formation as a Political Process: The Case of Monetary Union in Europe', in Ira Katznelson and Barry Weingast (eds.), *Preferences and Situations – Points of Intersection between Historical and Rational Choice Institutionalism*, (New York, 2005), 150.

government that reinforced the objective of irrigated development. In particular, the decisions of successive governments played a highly influential role in the acceptance of indirect benefits as the central justification for continuing with the objective of development. In the shadow of previous failures associated with closer and soldier settlement along with the perceived threat to irrigated development as a result of the McClelland Commission's findings, the continuation of the policy through emphasising its indirect benefits was conceived of as the desirable course of action. Reflecting their incompatibility with the enforcement of a direct economic return, indirect benefits were practically immeasurable (as Dunstan admitted by highlighting that they were incapable of being included in the budget) and were little more than an assumption. However, they successfully echoed arguments that supported the introduction of the legislative provisions during the era of Deakin and Swinburne – viewing agricultural development as a central feature of national economic growth (manifest in the requisite focus on decentralisation, population growth and the advancement of trade in agricultural commodities).

Preferences, interests and incentive structures

While placing an emphasis on the endogenous nature of preference formation and the influence of policy history offers a useful insight into the self-reinforcing aspects of the process, this should not imply that political institutions radically reconstruct an actors interests. Indeed, political actors are influenced by values, ideals and beliefs that reflect their broader identity as individuals. Policy preferences in this manner reflect an expression of "identities, interests, values, and worldviews" that comprise individual and collective characteristics.⁵⁹⁹ Immergut has noted that: 'when individuals adopt new collective identities...they do not lose their ability to perceive conflicts between their identity and interests as individuals and their commitment

⁵⁹⁹ March and Olsen, *Rediscovering Institutions*, 24; See also: Richard Hall, 'Professionalization and Bureaucratization', *American Sociological Review*, 33(1) (1968), 92-104.
to their collectivity.⁶⁰⁰ The essence of this approach is that it envisages the goals pursued by political actors as a combined reflection of individual and collective identities. Political institutions thereby act as filtering structures comprised of self-reinforcing patterns, through which both individual and collective interests are conveyed.⁶⁰¹ Immergut reasons that this also extends to an understanding of how political institutions and government policies "facilitate" the organisation of interests.⁶⁰² Interest groups are seen to formulate their strategies in response to the same incentive structures generated within political institutions.⁶⁰³ In this respect, the active promotion by government of large increases in water storage and supply infrastructure accompanied by a continued focus on keeping irrigation rates and charges lower than supply costs encouraged politically active irrigator groups to continue rent-seeking patterns of agitation. These incentive structures were representative of the central policy features that rural water supply governance actively encouraged, and this largely reflects what Pierson suggests are 'the downstream social and political consequences of policy arrangements.⁶⁰⁴

The repudiation of economic return

The appointment of the McClelland Commission occurred in recognition of a series of policy decisions and governance failures that culminated in the excessive losses incurred by the SRWSC. The failure to fully implement Swinburne's system of irrigation charges and subsequent alterations to the basis of charges in 1909 had produced a trajectory where considerably less emphasis was given to pursuing the objective of economic return. While the

⁶⁰⁰ Ellen Immergut, 'The Theoretical Core of the New Institutionalism', *Politics and Society*, 26(1) (1998), 20.

⁶⁰¹ Ibid.

⁶⁰² Ibid.

⁶⁰³ Paul Pierson, 'Increasing Returns, Path Dependence, and the Study of Politics', *American Political Science Review*, 94(2), (2000), 256; see also: North, *Institutional Change and Economic Performance*, 110.

⁶⁰⁴ Pierson, Study of Policy Development, 45.

principle of economic return was enshrined in the legislation it was gradually supplanted by the view that the costs of irrigated development were effectively offset by its indirect benefits. One understanding of this shift is to consider it in terms of a 'disaggregated process of "reinterpretation" whereby the meanings actors associate with a particular institution change over time with corresponding shifts in patterns of action."⁶⁰⁵ Underlying this process of reinterpretation is a series of graduated, piecemeal shifts "from below" (as the study of indirect benefits arguments discussed in this chapter suggests), where actors 'attempt to bend the existing practices to suit their interests, without formally abolishing them.⁶⁰⁶

Once the *Water Act* (1905) was in operation future development was intended to become dependent on the financial success of existing development. The compulsory water right in this regard, was intended to perform a dual function of assisting development by effectively "forcing" settlers to use the water, while at the same time imposing a charge based on the valuation of land, thereby returning the costs of supply as revenue to the SRWSC. By the time that the compulsory volumetric charge was introduced in 1909, the executive government had already determined to set water rates at no more than 50 per cent of the actual cost of supply. Over the next decade, as the state's role in advancing irrigated development became significantly greater, successive governments continued to supress any SRWSC attempts at increasing water supply charges to reflect costs, with the direct effect being decreasing revenue streams.

⁶⁰⁵ Peter Hall, 'Historical Institutionalism in Rationalist and Sociological Perspective', in James Mahoney and Kathleen Thelen (eds.), *Explaining Institutional Change: Ambiguity, Agency. Power* (New York, 2009), 21.

⁶⁰⁶ Peter Hall and Kathleen Thelen, 'Institutional Change in Varieties of Capitalism', *Socio-Economic Review*, Vol 7(1) (2009), 19; Hall and Thelen suggest an example of reinterpretation can be viewed in recent examples of German collective bargaining (2006).

Considering this history through the perspective of government in 1935, irrigated development and economic return could hardly have been further disconnected as policy objectives. Moreover, the effects of the depression appeared to be considered by government as an "unfortunate check" that had momentarily limited policies of expansion.⁶⁰⁷ Essentially, if expansion wasn't conceived of as "the problem" its status as the solution was preserved. Similarly, despite the threat posed to institutional stability by the more sobering findings of the McClelland Commission, its reports were ultimately employed by the Dunstan government as another justification for the chosen policy path. In this way, an elevated sense of "meaning" was derived from the political action. March and Olsen suggest that 'meaning is constructed in the context of becoming committed to action⁶⁰⁸ and a political actors' interpretation of meaning (as it relates to past decisions and present problems) further informs the formation of their policy preferences. The McClelland Commission reports provided Dunstan's government with the clear and justifiable economic reasons it required to proceed with completing the process and formally discarding the legislative objective of receiving an economic return from irrigated development. Furthermore, the actions of successive executive governments had ensured that the capital liabilities were unrecoverable and there was little option but to transfer the losses to the State. Ultimately, the formalised repudiation of the economic return objective was completed through the transfer of all of irrigation's capital liabilities to the general taxpayer in 1944. The profound economic and environmental "costs" of these policy decisions would not manifest until much later, when irrigation supply had become deeply entrenched within the advanced stages of development in the decades after the Second World War.

⁶⁰⁷ Davidson, Australia Wet or Dry, 82.

⁶⁰⁸ March and Olsen, *Rediscovering Institutions*, 40.

Summary

As a result of path dependent processes over an extended period (nearly three decades) policy preferences in favour of prioritising the objective of irrigated development became prevalent throughout successive governments. A continued focus on "indirect benefits" as the essential justification for the primary institutional objective of irrigated development saw the development of a self-reinforcing policy trajectory. This powerfully demonstrated the influence of the institutional environment over the preferences of its actors. This forced a gradual process of "reinterpretation" of the governance objectives, and the Dunstan government proceeded to repudiate the secondary objective of economic return in favour of placing a significantly greater emphasis on the primary objective of irrigated development.

Conclusion

This case study demonstrates that the unrelenting focus on irrigated development became instrumental in shaping the preferences of political actors during the period of the 1930s depression. As the clear product of the robust institutional structure initiated by Deakin and Swinburne, this focus on irrigated development quickly began to dominate decision making. The over expansion of settlement in the decades after federation and the subsequent instability of agricultural markets generated significant pressures on irrigated settlers, which were further intensified by the effects of the depression. In addition, successive governments kept the rates and charges associated with irrigation significantly below the actual costs of supply, and an accumulated SRWSC loan liability arose in conjunction with growing arrears for rates and charges on behalf of the settlers. A political justification gradually developed whereby it was argued that these costs were effectively offset by the "indirect benefits" of irrigated

development (the economic benefits of agriculture, increased employment through agriculturally-associated industries, a greater income tax base, and a decentralised population). Government, political parties and irrigator groups all possessed this view of irrigated development. The Dunstan government's appointment of the McClelland Commission was intended to justify a transfer of the excessive capital liability of the SRWSC to the state, and reduce the arrears of settlers. However, the commission eventually adopted the view that the practical responsibility for economic losses rested with the policy of "forced development". Testimony to the commission further revealed a strong perception among irrigators that they considered the State as obliged to provide them with irrigation water. The McClelland Commission recommended that the majority of the capital liability be transferred to the state, but also warned that future extensions of irrigation supply were not warranted, and that existing water rights should be supplanted by a contract system.

In response, the Dunstan government continued to advance a singular notion of irrigated development. Moves to formalise the government's position on irrigated development were the result of the combined efforts of Dunstan and his water supply minister Old, both of whom were seized of the belief that irrigation's capital losses were an unavoidable reality in the pursuit of the expansion of rural water storage and supply. This response was largely the product of path dependent processes that (over a period of three decades) incentivised the formation of policy preferences that favoured the prioritisation of the objective of irrigated development. As an example of a self-reinforcing policy trajectory, the continued assertion of irrigated development as the fundamental objective of rural water supply governance throughout this period, facilitated a formal departure from the secondary objective of economic return.

Chapter Five – Victoria's Urban/Rural Water Supply Divide

This chapter considers two examples of Victoria's urban/rural water supply divide and their influence over the allocation of water according to competing uses (irrigation supply in the northern regions, and domestic and industrial supply in the metropolitan zone). However, it should be noted that before the institutional structure was in place, northern flowing waters had been utilised for Melbourne's water supply. The investigations of William Davidson (supervising engineer of Melbourne's water supply)⁶⁰⁹ in the Plenty Ranges at the beginning of the 1880s revealed two streams on the northern slopes forming tributaries that flowed into King Parrot Creek (a tributary of the Goulburn River).⁶¹⁰ Between 1882 and 1886 both tributaries, known as Silver Creek and Wallaby Creek, were diverted by contour channel across a low saddle of the Northern Dividing Range and then into the Yan Yean aqueduct.⁶¹¹ The diverted water is held in the Toorourrong Dam (on the Plenty River) and remains a significant component of the Yan Yean water supply. As the second case study of this thesis, this chapter examines how the notion of an urban/rural water supply "divide" developed across two distinct periods of rural water supply governance to the point of becoming an effective limit on decision making.

⁶⁰⁹ Davidson was an Irish-born civil engineer who settled in Ballarat in 1859. He was appointed assistant to the supervising engineer for Melbourne's water supply (Charles Taylor) in 1873 and then appointed Taylor's replacement following the 'Black Wednesday' political crisis in 1878. He was chief inspector of Public Works from 1889 until his retirement in 1912, and concurrently held the position of chief engineer of the Melbourne water supply until the formation of the Melbourne and Metropolitan Board of Works in 1891. Ronald McNicoll, 'Davidson, William (1844–1920)', *Australian Dictionary of Biography*, (First published, 1981), Retrieved: <u>http://</u> adb.anu.edu.au/biography/davidson-william-5905/text10057, (March 16 2016).

⁶¹⁰ Dingle and Rasmussen, Vital Connections, 30.

⁶¹¹ Victoria, Parliament, Royal Commission on State Forests and Timber Reserves – Thirteenth Progress Report, Parliamentary Paper (no.10), (Melbourne, Government Printer, 1900), 4.

As with chapter four, this chapter advances an understanding of institutional development that emphasises the significance of prevailing ideals, values and beliefs to the development of preferences. However, this chapter can also be distinguished through the further emphasis it places on the significance of institutional rules that are adopted in the earliest stages of development, and how these rules become "culturally significant" to later preferences and decisions. The chapter begins by examining the proposal by the MMBW in 1898 to divert the Acheron River (a northern flowing tributary to the Goulburn River), and the subsequent decision by George Swinburne to grant a diversion subject to the "absolute control" of the SRWSC. It then considers the later proposal (1962) by the MMBW to divert the Big River (another tributary of the Goulburn River) and the SRWSC's strong opposition to the proposal culminating in the decision by Premier Henry Bolte to block any diversion of northern flowing waters to supply Melbourne.

The chapter explores the urban/rural water supply divide in rural water supply governance according to an understanding of rules that become "fundamental" to institutions, how their embeddedness within the overriding institutional structure increases over time, and their powerful influence over decision making. It extends on the concept of policy preferences through advancing an understanding of the cultural significance of existing values, ideals and beliefs when institutions are formed and how these can later influence the formation of preferences. In this regard, the goals and objectives that guide the institutional design are viewed as evidence of an intent to bind later actors to a particular course of action.⁶¹²

⁶¹² R E Goodin, 'Institutions and Their Design', in R E Goodin (ed.), *The Theory of Institutional Design*, (Oakleigh, 1996), 40-41; See also: Terry M Moe, 'Political Institutions: The Neglected Side of the Story', *Journal of Law, Economics, & Organization*, Vol 6 (1990) Special Issue: [Papers from the Organization of Political Institutions Conference, April 1990], 226-228.

The chapter argues that initial decisions establishing a policy divide on urban and rural water supply later gave rise to robust governance perspectives that were dismissive of alternative policy trajectories. It offers a specific example of constrained institutional decision making as a result of a robust institutional structure. This will demonstrate the effects of an institution establishing foundational rules that are effectively considered "unchangeable" in order to provide predictability and continuity in decision making. As such, the rules concerning the urban/rural water supply divide are viewed as deeply embedded in the institutional structure and more symbolic in their meaning to actors.⁶¹³

Forests' Commission second report (referral of Acheron proposal)	1898	First proposal to divert Acheron River (Thwaites)
	1899	
Forests' Commission thirteenth report (recommends diversion only possible when "absolutely necessary")	1900	
	1901	
Inter-State Royal Commission on River Murray	1902	Stuart Murray proposes alternative diversion of Acheron
	1903	
	1904	Formation of Bent "Reform" Government - Swinburne as minister for water supply
	1905	
	1906	
	1907	
Swinburne proposes limited diversion of Acheron subject to extensive conditions and the absolute control of the SRWSC	1908	Second proposal to divert Acheron (Riddell)
	1909	

Figure 5.1(a) – Chapter 5 Timeline (Part 1)

⁶¹³ Goodin, Institutions and their Design, 23.

	1951	
	1952	
MMBW Town Planning Committee "Master Plan"	1953	
	1954	Completion of Eildon Dam (stage two) - SRWSC
Appointment of Albert Ronalds to Engineer-in-Chief MMBW	1955	Election of Bolte Government
	1956	
Completion of Upper Yarra Reservoir - MMBW	1957	
	1958	
"Urban Expansion in Melbourne Metropolitan Area " Report	1959	Water "Irrigation" Act (1959) - Transfer of irrigation district losses to the state
	1960	
	1961	
Ronalds' Report on <i>Future Water Supply</i> of the Melbourne Metropolitan Area	1962	
Bolte announces Expansion program for rural water supply	1963	"Future Water Supply of Melbourne" referred to Public Works Committee
	1964	Bolte declares "not one drop" of northern water to cross the "divide"
	1965	
	1966	Public Works Committee recommends construction of Cardinia Reservoir
	1967	Public Works Committee recommends construction of Thomson Reservoir and diversion of Aberfeldy River
	1968	
	1969	
Construction of Cardinia Reservoir commences	1970	

Figure 5.1(b) – Chapter 5 Timeline (Part 2)

Rival Sectors and Competing Claims

Towards the close of the nineteenth century the MMBW was confronted with significant issues concerning the reliability of its water supply and the demands of the metropolitan population. In contrast to country Victoria, Melbourne's growth had slowed during the 1890s (largely a result of the financial crisis), and by the time of the 1901 census the metropolitan zone accounted for approximately 41 per cent of Victoria's total population (Figure 5.2 below). Still in its infancy, the Board had directed much of its energy during the 1890s towards improving Melbourne's sanitation and water supply in the city had become a secondary priority. Duncan Gillies had initiated the legislation to form a metropolitan board of works (separate and distinct from the water supply department) after the *Royal Commission to inquire into and Report upon the Sanitary Condition of Melbourne* recommended its formation to meet the city's water supply and sanitation requirements.



Figure 5.2 – Victoria population growth and centralisation 1891 to 1901 – Adapted from the Victorian Yearbook – Source: Victorian Year-Book 1903 (Melbourne, 1903) pages 117-136.

At the time, its chairman Professor Harry Allen⁶¹⁴ had advocated for a more abundant water supply to the city believing that the summer supply would ultimately prove inadequate. Construction of the initial stage of the Maroondah aqueduct on the Watts River as recommended by Davidson had commenced in 1886,⁶¹⁵ and by the time the second royal commission report had been presented to the parliament in 1891 the works were completed. Allen further urged the government to commit to exploiting the entire Watts River catchment to ensure that 'no delay be permitted in increasing the Maroondah supply to the full limits of the carrying capacity of the present aqueduct.'⁶¹⁶ This additional supply from the Maroondah aqueduct proved to be effective in alleviating the city's immediate supply needs and the MMBW subsequently gave less attention to ongoing water supply construction in favour of sewerage construction.

The 'Acheron River' proposal

Dingle and Rasmussen have noted that 'between 1896 and 1906 expenditure on water supply never reached £20,000 a year and was sometimes less than half that amount. Sewer construction was costing more than that each week.'⁶¹⁷ In spite of these economic constraints, the MMBW's engineers and surveyors continued investigating future locations for supply including tributaries located north of the Dividing Range. A survey of the country to the east of the Watts River revealed the suitability of the Acheron River (on the northern side of the

⁶¹⁴ Harry Brookes Allen was a pathologist and medical administrator and editor of the Australian Medical Journal (1879-1883). He was appointed professor of descriptive and surgical anatomy and pathology at the University of Melbourne (1882), and served as dean of the faculty of medicine in 1886-90 and 1896-1924. K F Russell, 'Allen, Sir Harry Brookes (1854–1926)', *Australian Dictionary of Biography*, (First published, 1979), Retrieved: <u>http://adb.anu.edu.au/biography/allen-sir-harry-brookes-5002/text8315</u>, (March 22 2013).

⁶¹⁵ 'The metropolitan water supply', Age (Melbourne), August 14 1886, 4.

⁶¹⁶ Victoria, Parliament, Second General Report by Professor H B Allen M.D., Parliamentary Paper (no.76), (Melbourne, Government Printer, 1891), 5.

⁶¹⁷ Dingle and Rasmussen, Vital Connections, 114.

Dividing Range) for capture and diversion across the range's northern spurs.⁶¹⁸ In 1898 the MMBW applied to the Crown Lands Department to reserve 114,000 acres on the southern (Yarra) catchment in the County of Evelyn,⁶¹⁹ and made a further application to vest 12,800 additional acres of the Upper Acheron catchment for future water supply purposes.⁶²⁰

[Figure omitted for copyright purposes. Refer to Dingle and Rasmussen, 'Vital Connections -

Melbourne and its Board of Works 1891 - 1991', 30.]

Figure 5.3 – Melbourne's catchments and water supply (1891) – Including the Maroondah and Yan Yean systems, and the Silver and Wallaby Creek diversions – Source: Dingle and Rasmussen, 'Vital Connections – Melbourne and its Board of Works 1891 – 1991'⁶²¹

⁶¹⁸ Ibid, 7.

⁶¹⁹ Victoria, Parliament, Progress Report of the Royal Commission on State Forests and Timber Reserves on the Victoria Forest: its resources, management, and control, Parliamentary Paper (no.54), (Melbourne, 1898), 4.

⁶²⁰ Age (Melbourne), January 8 1900, 5.

⁶²¹ Dingle and Rasmussen, Vital Connections, 30.

Due to the timing of the applications and proximity of the requested reservations in the Victoria Forest, both applications were referred to the Royal Commission on State Forests and Timber Reserves (hereafter 'Forest Commission'). The Forest Commission had been appointed by the Turner ministry to inquire into the condition of state forests and timber resources of the State 'with the view of ascertaining if they should be carefully conserved, and if there is a prospect of a profitable export trade.'622 It was one of nine policy-based royal commissions initiated during George Turner's five years in office with many of these reflecting attempts to address the lasting effects of the 1890s depression.⁶²³ The commission was chaired by Albert Tucker, former president of the Board of Land and Works, and a prominent member of colonial inquiries and royal commissions during the 1880s and 1890s.⁶²⁴ As consideration of the Victoria Forest included the MMBW's applications over the Yarra and Acheron watersheds they ultimately became major issues addressed by the commission. Public objections to the Acheron proposal initially came from the Healesville Shire Council, concerning its lost opportunity to fell and split the proposed Acheron reserve with a view to its eventual settlement.⁶²⁵ However, written protests against the proposed diversion from the Nagambie, Tatura and Shepparton water trusts directed to Stuart Murray and the Department of water supply arrived soon after.⁶²⁶ Murray's reply to the protests was unexpected and only served to further aggravate rural anxiety over the issue:

⁶²² 'The timber resources of Victoria', Argus (Melbourne), May 21 1897, 5.

⁶²³ Adam Delacorn, *Royal Commissions in Victoria: 1854-2009*, Research Paper, Department of Parliamentary Services, Parliament of Victoria 2011, 12-13. Two inquisitorial royal commissions were also initiated by the Turner ministry including the royal commission to inquire into and report as to the financial position and prospects of the various local bodies that have obtained loans from the State for the construction of works of water supply.

⁶²⁴ Ann-Mari Jordens, 'Tucker, Albert Edwin (1843–1902)', *Australian Dictionary of Biography*, (First published, 1976), Retrieved: <u>http://adb.anu.edu.au/biography/tucker-albert-edwin-4754/text7859</u>, (May 15 2013).

⁶²⁵ *Healesville Guardian and Yarra Glen Guardian* (Vic), December 1 1899, 3, Retrieved: <u>http://nla.gov.au/nla.news-article60299594</u>, (December 15 2016).

⁶²⁶ Victoria, Parliament, Royal Commission on State Forests and Timber Reserves – Thirteenth Progress Report, Parliamentary Paper (no.10), (Melbourne, Government Printer, 1900), 13.

It is considered if the city of Melbourne requires a further supply of water which can be more conveniently obtained from the Acheron than elsewhere, the city will, no doubt, get the supply, in spite of any protest that can be made. The more practical question is, under what conditions can a supply from the Acheron be granted to the city without injury or with a minimum injury to rural interests.⁶²⁷

As a direct consequence of this communication the *Water Works and Irrigation Trusts Association* resolved that 'strong objection be raised to any diversion of the Acheron River'⁶²⁸ and subsequently organised a deputation to the Minister of water supply.

The Forest Commission inquiry

During its initial enquiries the Forest Commission received a series of reports and submissions from the Department of water supply and the MMBW. As chief engineer of the water supply department, Stuart Murray conceded that during the wet season, a diversion of as much as 90 megalitres per day was not 'injurious to the interests of dwellers on the lower river.'⁶²⁹ This was in line with the MMBW's view as their proposed diversion would be limited to 45 megalitres per day. Although, Murray also indicated that a much smaller diversion during the summer months would significantly limit the flow of the lower river and indicated that no diversion should be made when the river's discharge dropped below 40 megalitres per day, or that at least this quantity should be allowed to pass the MMBW's offtake during the summer months. However, the MMBW objected to this condition on the basis that 'the limitation proposed would absorb more than the entire flow of the river at some periods,' which would

⁶²⁷ 'Diversion of the water of the Upper Acheron', Argus (Melbourne), August 31 1900, 6.

⁶²⁸ 'Country water supply', Age (Melbourne), September 6 1900, 7.

⁶²⁹ Victoria, Parliament, Royal Commission on State Forests and Timber Reserves – Thirteenth Progress Report, Parliamentary Paper (no.10), (Melbourne, Government Printer, 1900), 13.

result in the demise of the scheme.⁶³⁰ The MMBW's engineer William Dowden stated '*the needs of the larger population of the metropolis, as compared with the small population of the trusts, is worthy of consideration, especially as the quantity proposed to be diverted is such a small fraction of the whole.*' [*Emphasis Added*]⁶³¹ Dowden further explained that the "fraction of the whole" (according to the proposed Acheron diversion) was as little as one per cent of the complete watershed of the Goulburn basin, and that a diversion of 45 megalitres per day was a "comparatively trifling" figure against a flow averaging 900 to 1800 megalitres per day at the Goulburn Weir.



Figure 5.4 – The Goulburn Weir c1909 – The weir (completed in 1891) utilised the natural flow of the Goulburn River for irrigated agriculture – Source: *Leader* (Melbourne) December 18 1909.

⁶³⁰ Ibid, 14.

⁶³¹ Ibid.

However, the Department of water supply was confident that the possibility of securing a greater permanent supply of water for irrigation was beyond doubt. Moreover, it was working on proposals to construct a much larger scheme on the Upper Murray at Albury/Wodonga (an early plan for construction of what eventually became the Hume Reservoir).⁶³² With a greater awareness of the MMBW's intended plans for the diversion, Stuart Murray's perspective had shifted. The MMBW's proposal to reduce rural water supply (even if by a relatively small percentage) was directly opposed to the primary objective of irrigated development. In his official memo to the Forest Commission Murray confirmed Dowden's suspicion that the Department intended to preserve the availability of supply to irrigators in the Lower Goulburn Valley. Murray explained that the diminution of intake at the Goulburn weir of 2.2 per cent of the whole was indeed an important consideration 'when viewed in relation to the possible extent of future industrial settlement in the Goulburn Valley. The possibilities of settlement there must be in the direct ratio of the water available for its support.' [Emphasis Added]⁶³³ Murray further stated the Department's view that securing the headwaters of a tributary of the Goulburn was not considered an effective long-term supplement to any defect in metropolitan supply. Instead, the Department of water supply believed that the glaring alternative was the Upper Yarra and pressed the Forest Commission for an answer.⁶³⁴

The final day of testimony to the Forest Commission regarding the Acheron exposed a deepening divide between the MMBW and the Department of water supply. In particular, Murray indicated that the Department was focused on where the future supply of Melbourne

⁶³² 'Water for northern Victoria', Argus (Melbourne), July 5 1900, 4.

⁶³³ Victoria, Parliament, Royal Commission on State Forests and Timber Reserves – Thirteenth Progress Report, Parliamentary Paper (no.10), (Melbourne, Government Printer, 1900), 15.

⁶³⁴ Ibid, 14.

was to be obtained, either 'from the Yarra or the Acheron. It should be only obtained from the Acheron in preference if the cost of obtaining a limited supply from the Yarra should be so much greater than taking it from the Acheron as to handicap the city very heavily.⁶³⁵ William Thwaites (Engineer in Chief of the MMBW) presented to the Forest Commission that the Acheron supply shared many similarities to the previously obtained northern water from the Wallaby and Silver creeks, and was capable of yielding a "very fair supplementary supply". However, the MMBW did not intend to call on the water immediately. 'The time may come when there will be the necessity for it, and our contention is that there should be no permanent settlement on it, so that we should be able to get it when the time comes.'⁶³⁶ Thwaites addressed Murray's statement that the present and future population of the Lower Goulburn Valley were in greater need of the water. 'As regards the rights of the people of Melbourne there are about 41 per cent of the inhabitants of the colony supplied by the Melbourne Water Supply system, and the annual valuation of Melbourne is £4,000,000 so the people of Melbourne deserve some little consideration.'⁶³⁷

The MMBW's central concern was that economic considerations were being ignored to the detriment of Melbourne's population and Thwaites confirmed that it believed the entitlement should extend to a year-round supply including a right of access to the water not only to supplement the city supply in the winter months (relieving the Yan Yean reservoir), but to divert much smaller quantities during the summer months and directly supplement the Yan Yean supply. However, upon hearing the testimony of Thwaites, Murray indicated that his position (and therefore the position of the Department) had shifted significantly:

⁶³⁵ Ibid, 34.

⁶³⁶ Ibid, 35-36.

⁶³⁷ Ibid, 36.

I am glad to have heard Mr. Thwaites' statement – I now know for the first time what it is that the Board desire from the Acheron, that is, to divert the small stream that flows in summer down that river so as to save taking the water from their own storage during summer. That means that the Board desires to take the water of the Acheron, and the argument could be, and I think would be, extended to other streams sooner or later – that the summer water of these streams, which is the only water flowing into the Goulburn in summer, should be diverted – that would mean that the Government, or the authority supplying water to the northern country, must provide further storage for the Goulburn Valley, and the country dependent upon the Goulburn, in order to save the metropolis from increasing its storage to save winter water. From that point of view I object on the part of the Water Supply Department to the diversion involved from the Goulburn.⁶³⁸

The Forest Commission's report in 1900 concluded that the waters flowing north of the divide should only be diverted to supply Melbourne 'in the last resort, and as a matter of absolute necessity.'⁶³⁹ While it was conceded that the MMBW had made an effective economic case for diverting the Acheron, the proposal was considered to impact too heavily on settlers' entitlements across the northern plains.⁶⁴⁰ Dingle and Rasmussen suggest that this reasoning reveals what could only be considered a 'basic principle of Victoria's water politics.'⁶⁴¹ The findings certainly made it clear to the MMBW that in a contest between metropolitan and rural interests, that preference towards the latter was unashamedly the default position. However, the government appeared unsatisfied with the royal commission's terminology by including "absolute necessity" and "last resort" in qualifying its findings, and as a result, it was

⁶³⁸ Ibid; "the Board" was a common name referring to the MMBW at the time.

⁶³⁹ Ibid, 10.

⁶⁴⁰ Ibid, 11.

⁶⁴¹ Dingle and Rasmussen, Vital Connections, 114.

announced that 'no waters having a northern flow to the Murray River should be made available for metropolitan water supply purposes.' [Emphasis Added]⁶⁴²

Melbourne's water supply and the 'Interstate Royal Commission on the River Murray'

Undeterred, the MMBW took the surprising step of requesting a further resolution to the Acheron diversion question by referring it to the Interstate Royal Commission on the River *Murray* (hereafter 'ISRC')⁶⁴³ It is not entirely clear why the MMBW decided on presenting to the ISRC, although with Stuart Murray as Victoria's appointment, they may have viewed it an opportunity to explain their position again and resolve previous differences. Edmund Fitzgibbon (the MMBW Chairman) believed it was "expedient" to appear before the ISRC 'so that it might not be said in the future that it had remained silent when it ought to have spoken.'644 Thwaites' testimony included an important shift on behalf of the MMBW, and he suggested that Stuart Murray had possibly "misconstrued" the testimony given by him before the Forest Commission. As the watershed's highest value to the MMBW was during the winter months its use would further supplement the existing supplies during this time, further alleviating usage of the Yan Yean storage and allowing it to recharge for the summer months.⁶⁴⁵ Thwaites argued Murray had mistakenly inferred that the MMBW was also attempting to supplement usage of the Yan Yean during the summer months. As a gesture intended to assuage these concerns Thwaites suggested that any diversion of the Acheron could exist as a "right of abstraction" from April to October. Outside of these months the MMBW would be satisfied to

⁶⁴² 'Melbourne water supply – the Acheron scheme', Age (Melbourne), December 4 1900, 4.

⁶⁴³ Victoria, Parliament, Interstate Royal Commission on the River Murray, Parliamentary Paper (no.35), (Melbourne, Government Printer, 1902), 55.

⁶⁴⁴ 'Melbourne's water supply – its future extension', Age (Melbourne), July 18 1902, 7.

⁶⁴⁵ Victoria, Parliament, Interstate Royal Commission on the River Murray, Parliamentary Paper (no.35), (Melbourne, Government Printer, 1902), 103.

leave any diversion between November and March entirely within the discretion of the engineer in chief of the water supply department.⁶⁴⁶

The MMBW's appearance before the ISRC drew further indignation from the northern irrigation regions. A provocative editorial from the *Bendigo Advertiser* maintained that the MMBW had displayed considerable "audacity" by continuing with its proposal. Moreover, it regarded any proposal to divert the northern-flowing Acheron as a 'scandalous injustice to the settlers' that 'should not receive a moment's consideration.'⁶⁴⁷ Although, the editorial did not pass comment on Thwaites' actual testimony before the commission, or that the MMBW had amended its proposal and now desired Acheron water only during the winter months when flows were too high to be adequately harnessed for irrigation within the Goulburn basin.

Significantly, it was on this point that the ISRC found itself in agreement with the position of the MMBW, and after consideration of Thwaites' testimony, Murray submitted his response to the ISRC on behalf of the Victorian Department of water supply:

Having looked into the question with care, I am of opinion that we ought not to consent to a grant of right of diversion, in the Acheron, in the terms proposed by the Board; but I think that a right, that should prove of even greater service to the Board, may be accorded without tangible injury to the interests of settlers in the Goulburn Valley. The right I propose is as follows: The Board to be entitled to divert from the Acheron River, at all times, except during the months of January, February, March, and April, during which four months there shall be no diversion.⁶⁴⁸

⁶⁴⁶ Ibid, 104.

⁶⁴⁷ Bendigo Advertiser, July 21 1902, 2, Retrieved: <u>http://nla.gov.au/nla.news-article89481252</u>, (December 14 2016).

⁶⁴⁸ Victoria, Parliament, Interstate Royal Commission on the River Murray, Parliamentary Paper (no. 35), (Melbourne, Government Printer, 1902-03), 56.

After considering the available gaugings from the Acheron, Murray had determined that his proposed diversion would see the MMBW obtain more than 70 megalitres per day during the eight months of the diversion. Murray further stated that such a right of diversion 'may be taken to be more than a fair equivalent for the right asked for...*it is, in my opinion, the only form of right of diversion from the Acheron that can be granted without tangible injury to the interests of settlement in the Goulburn Valley.*' [*Emphasis Added*]⁶⁴⁹ However, the negative public attention had seen the MMBW back away from the issue and by the close of the ISRC it appeared ready to depart from the proposal altogether.

An 'emergency' supply for Melbourne

The return of drought resulted in the Melbourne metropolitan area and its surrounding water catchments experiencing extremely low rainfall throughout 1907 and 1908.⁶⁵⁰ The city's water supply was pushed to its limits with minimal supplies in the existing storage reservoirs including Yan Yean. Melbourne's water supplies were additionally stretched by the large population increases in the metropolitan area. Between 1891 and 1901 the city's population had increased by approximately 6 000 persons to 496,079 yet by the end of 1907 the population had increased significantly to approximately 538,000.⁶⁵¹ The increase also coincided with development in the eastern metropolitan region, consisting of larger subdivisions at higher elevations. These developments typically accommodated substantial gardens and had placed further pressure on the city's water supply.⁶⁵² Aside from the immediate need for additional

⁶⁴⁹ Ibid.

⁶⁵⁰ Dingle and Rasmussen, Vital Connections, 116.

⁶⁵¹ Victoria, Government Statist, Victorian Year-Book 1903, (Melbourne, Government Printer, 1903), 135; Victoria, E T Drake, (Government Statist), Victorian Year-Book 1907-08, (Melbourne, Government Printer, 1908), 181.

⁶⁵² James Viggers, David Lindenmayer and Haylee Weaver, *Melbourne's Water Catchments: Perspectives on a World-Class Water Supply*, (Melbourne, 2013), 27.

supply in the face of continuing drought the MMBW's greatest concern was that the rapid increase in population required additional storage in order to avoid the exhaustion of the Yan Yean reservoir. As a result, the MMBW again approached the Minister for water supply, (by this stage Swinburne occupied the role) with a proposed diversion to secure a year-round supply from the Acheron.

Swinburne requested that the MMBW provide the government with all of the information concerning the conditions of metropolitan supplies, and a "statement of reasons" justifying the Acheron diversion. The MMBW's newly elected chairman Walter John Carre Riddell⁶⁵³ offered the ministry an unambiguous appraisal of the demands on the city's water supply. A Melbourne-based lawyer and partner at a successful city law firm Hamilton, Wynne and Riddell, he had served on the Caulfield Shire Council and was elected as a commissioner to the MMBW representing Caulfield in 1891. He brought a robust and matter-of-fact style to the MMBW's correspondence with the Ministry, particularly with regard to his perception of the legalities concerning the proposed Acheron diversion. Riddell requested immediate unconditional authority to commence the Acheron diversion and emphasised that there were significant consequences for Melbourne's population if there was any further delay:

The principle of diverting streams and depriving riparian owners of their common law rights has been the fixed policy of this State for years and all the water trusts are examples of its application. That principle has been extended by the Water Act 1905 which has vested the right to the use, flow and control of the waters of all streams in the Crown. Consequently, the rights of any riparian owners on the Acheron are limited to the use of such waters as the Crown may permit to flow past them...It is maintained that the amount of water proposed to be withheld from the

⁶⁵³ Ronald McNicoll, 'Riddell, Walter John (1859–1930)', *Australian Dictionary of Biography*, (First published 1988), Retrieved: <u>http://adb.anu.edu.au/biography/riddell-walter-john-8208/text14361</u>, (March 16 2016).

Goulburn River by the diversion of a part of the summer flow of the Acheron is, as far as irrigation is concerned, small, and that the opposition to its withdrawal is largely sentimental.⁶⁵⁴

Swinburne ultimately approved the diversion of the Acheron River as a temporary supplement to the city's water supply⁶⁵⁵ although the approval came with substantial conditions attached, including the requirement that the diversion works be completed by the SRWSC (who by this time had assumed control of the catchments north of the Dividing Range) and that the MMBW meet all of the construction expenses. He further determined that the works would remain within the "absolute control" of the SRWSC⁶⁵⁶ and that the MMBW would also be expected to pay charges to the SRWSC for the diverted water. Moreover, Swinburne made it clear that the government intended to compel the MMBW at the earliest opportunity to commence diversion works on the O'Shannassy River and the Upper Yarra to meet the 'growing demands of the metropolis.'⁶⁵⁷

However, despite these conditions, Swinburne's agreement to the proposal drew an immediate response in Parliament from northern members, and the former Minister of water supply, George Graham led a small "Country Faction"⁶⁵⁸ from the northern regions who voiced their opposition to the Cabinet's decision and requested a stay on the commencement of any works

⁶⁵⁴ 'Water famine feared – Melbourne's serious position', *Age* (Melbourne), July 1 1908, 10.

⁶⁵⁵ 'Melbourne water supply – the Acheron diversion', Argus (Melbourne), July 7 1908, 6.

⁶⁵⁶ Ibid.

⁶⁵⁷ Ibid.

⁶⁵⁸ B D Graham, *Australian Country Parties*, 71-72. Graham highlights that this country faction concerned itself primarily with matters of closer settlement, irrigation and water supply, and ultimately aligned itself with John Murray's 'Liberals' on the issue of land valuation which saw the demise of Bent's government at the 1909 Victorian State election.

so that a deputation could be organised to meet with Swinburne.⁶⁵⁹ In response to Graham's motion, Labor member for the inner suburban seat of Flemington, Edward Warde, revealed a significant level of tension arising over the issue between the rural and metropolitan members: No portion of Victoria has more readily recognised than Melbourne has, the desirability of the country districts having a supply of water for domestic and stock purposes as well as for irrigation. In fact, the people of the metropolis have wrongfully assisted to wipe out liabilities amounting to millions of pounds incurred in sending water to the country districts...The proposal now made appears to be a very selfish one, for it is estimated that a large amount of the water in the Acheron River goes to waste.²⁶⁰

Other metropolitan members reiterated this position, although some ventured a step further and labelled the Country Faction's position a "dog-in-the-manger policy".⁶⁶¹

Lessons from the Acheron

While angered at the decision, the MMBW maintained a diplomatic stance and believed that drawing awareness towards the severity of the crisis would eventually change Swinburne's mind and see him grant full access to the river diversion. However, it had given little consideration to the developmental focus of the government and the northern regions. Just as Stuart Murray had previously declared to the Forest Commission that the government highly valued the importance of the Goulburn Valley to the future of "industrial settlement" in regional Victoria; the northern political representatives in combination with organised irrigator groups were equally adamant that future rural water supply would not accede to metropolitan

⁶⁵⁹ George Graham, VPD (Assembly), July 8 1908, 56-57.

⁶⁶⁰ Edward Warde, VPD (Assembly), July 8 1908, 57-58.

⁶⁶¹ William Alexander Watt, VPD (Assembly), July 8 1908, 58-59.

interests. This was reflective of a broader view that irrigation water carried a patently higher value from economic and social perspectives. The MMBW ultimately refrained from any further advance of the issue, notifying the Ministry that it intended 'to postpone the consideration of diverting the Acheron' until such time that it could adequately measure the effects of the summer consumption on the Yan Yean Reservoir.⁶⁶² The city of Melbourne endured the 1908-09 summer without the need for restrictions and more rains came in 1909. As a result, a number of years passed before the MMBW proceeded with the development of the O'Shannassy catchment (1914).

Summary

The divisions that emerged over the Acheron between the MMBW, the Department of water supply (and later, the SRWSC) underscore the dominance of the objective of irrigated development, which had become central to Victorian rural water supply governance. Moreover, the various exchanges between royal commissions', water authorities and the State government demonstrate that the needs of rural settlers were considered the primary policy consideration. The Acheron River issue also revealed that the executive government's significant powers over State water resources ensured that similar disputes would easily be resolved with the objectives of rural water supply governance as the determinative focus. As an elected body comprising representatives of the city and suburbs, the MMBW had operated under a flawed assumption that its standing as an authority (independent from the government) afforded it some degree of influence over water resources decision making.

However, Stuart Murray's proposed compromise at the ISRC also indicated that the position on inter-basin transfer was not entirely resolved, and that rural water administrators were

⁶⁶² Age (Melbourne), October 16 1908, 4.

willing to acknowledge Melbourne's water supply needs. Ultimately, Swinburne's conditional agreement introduced a greater level of certainty through the proposal of conditions that gave practically any control to the MMBW and left the SRWSC in a position of relative power. Furthermore, a clear position emerged that viewed the development of catchments north of the Dividing Range for the purposes of irrigation as the position of first instance wherever rural water supply demands collided with urban interests.

Melbourne's Centralisation and the Expansion of Rural Water Supply

By the early 1950s Victoria had entered a period of sustained post-war growth and expansion including massive population increases related to federal immigration initiatives and the baby boom. In combination with State government led programs focused on attracting investment and industry, the increases also contributed to a significant centralisation of population within Greater Melbourne. Authority over metropolitan planning was granted to the MMBW in 1949, and it embarked on producing a "Master Plan" for managing the city's growth. The MMBW proposals to expand its water supply and storage capabilities (including a proposal to access waters north of the divide) in the early 1960s, brought it into direct conflict with the SRWSC. During the same period, the SRWSC benefited from massive increases in water storage capacity and water supply expenditure which were largely a result of an organisational and broader political mentality focused on the continued expansion of irrigated development. The dispute between these agencies over their competing conceptions of "development" resulted in Premier Henry Bolte's famous statement that not "one drop" of irrigation water would cross the Dividing Range into Melbourne. The decision was a significant moment in Victoria's urban/rural water supply divide and reflected Bolte's uncompromising leadership style.

Henry Bolte's Victoria

According to David Dunstan, Bolte's premiership 'appears as one of the commanding features of the post-war Australian political landscape.'⁶⁶³ Henry Bolte (1908 – 1990) was born and raised in a country mining settlement known as Pitfield Plains in the Ballarat region. Henry came from a mixed background of German and English origins dating back to the *1848 Revolution* and the earliest settlements on the goldfields of Western Victoria. Peter Blazey has noted that considering the political heights to which Bolte ascended, his lack of 'formal preparation for any sort of career' was unusual.⁶⁶⁴ Henry settled on a run-down sheep property known as "Kialla" near the small town of Meredith, served in local militia from 1940 to 1944, before deciding to have his "first go at politics" in 1945.⁶⁶⁵ Elected to the Legislative Assembly in 1947 for the rural seat of Hampden, Bolte entered an unpredictable parliamentary environment marked by instability and continually shifting alignments.⁶⁶⁶

Victorian politics during the 1940s witnessed a Country Party minority government with Labor support, a Country/Liberal coalition, a Liberal/Country coalition, a Liberal minority government with Labor support, returning full circle to a Labor supported Country Party minority government at the beginning of the next decade. Within this fluid political environment, Bolte rose through the ranks, and received his first Ministry (water supply) in Thomas Hollway's 1948 Liberal minority government. The subsequent demise of this government at the hands of the Country Party and the formation of the *Liberal and Country*

⁶⁶³ David Dunstan, 'Henry Bolte: The Lucky Developer', in Paul Strangio and Brian Costar, *The Victorian Premiers 1856-2006*, (Annandale, 2006), 275.

⁶⁶⁴ Peter Blazey, *Bolte: A Political Biography*, (Melbourne, 1972), 5.

⁶⁶⁵ Tom Prior, *Bolte by Bolte*, (Melbourne, 1990), 28.

⁶⁶⁶ Dunstan, The Lucky Developer, 278.

Party (hereafter 'LCP')⁶⁶⁷ were also important moments in Bolte's rise to power. When Bolte finally assumed the leadership of the LCP in 1953 following the death of Trevor Oldham (who had died in an air crash travelling to the Coronation of Elizabeth II); it was thanks in part to his country connections and previous ministerial experience.⁶⁶⁸ History has regarded Bolte as a fortunate Premier as his ascension to the office resulted in part from internal divisions within the LCP and Labor's own fractious split in 1955. Despite this, Bolte established his premiership on the sound basis of proactive one party government and he fashioned a leadership image of being pro development. Fundamental to Bolte's government was his personal affiliation with country values, and Blazey notes this resulted in a perpetuation of 'the provincial and rural bias of the Victorian political tradition long after it was politically necessary.'⁶⁶⁹ While Bolte's ''rural bias'' and uncompromising leadership of the LCP were undoubted features of his longevity, they were equally detrimental in the face of greater demands being placed on a government confronted by an increasingly centralised population as a consequence of the post-war metropolitan expansion.

Centralisation and "decentralisation policy" in post-war Victoria

Concern over Melbourne's rapid expansion (particularly from the Board) during the 1950s had routinely failed to elicit governmental action. Relative to regional Victoria the proportion of population in Greater Melbourne was approaching 70 per cent (Figure 5.5 below). Increased calls for "decentralisation" were the eventual consequence. Dingle and Rasmussen note that decentralisation as an ideal has 'attracted widespread support in Victoria, especially in the

⁶⁶⁷ The Liberal and Country Party was formed in February 1949 after attempts at "blending" the Liberal and Country parties had failed in 1947 and 1948. See Brian Costar, 'Tom Hollway: The Bohemian', in Costar and Strangio (eds.), *The Victorian Premiers 1856-2006*, (Annandale, 2006), 232-233.

⁶⁶⁸ Dunstan, *The Lucky Developer*, 279.

⁶⁶⁹ Blazey, Bolte, 236.

Country Party. In the late 1950s a Labor Party desperate to expand its base outside Melbourne and with strong rural leanings left over from earlier coalitions also gave vigorous support.⁶⁷⁰ In this regard, decentralisation was a political mainstay in Victoria although over time the political perception of its purpose had morphed from a basic assumption of encouraging population growth outside Melbourne into a broader focus on the decentralisation of industry to foster employment growth throughout Victoria's regions.



Figure 5.5 – Victoria population growth and centralisation 1951-1961 – Adapted from the Victorian Yearbook – Source: V H Arnold, Government Statist, Victorian Yearbook 1965, Commonwealth Bureau of Census and Statistics, (Melbourne, 1965), pages 107-149.

⁶⁷⁰ Dingle and Rasmussen, Vital Connections, 261.

Labor Leader Clive Stoneham, in promoting his party's policy for decentralising industry and population criticised Bolte's lack of enthusiasm for decentralisation as a policy programme.⁶⁷¹ However, Bolte's government was not adverse to decentralisation as a policy objective, and had often proven itself to be a vocal supporter insisting only that it should proceed on a sound economic basis. The greater pressure limiting Bolte's government from acting more definitively on the subject was the desire to boost overseas industrial investment in Victoria (which was often a case of investment in Melbourne) and the Premier's active role in the policy of "attracting capital".⁶⁷² Victoria was benefitting considerably from rapid growth and Bolte considered that migration and investment were the foundations of ongoing prosperity. The logical consequence was that much of the growth was destined to be concentrated within the metropolitan area and decentralisation policy would do little to hold-back Melbourne's progress. Due to these broader issues Bolte's government had adopted a minimalist policy position in terms of managing growth.

Population and supply demands in Melbourne

As Victoria confronted the post-war expansion the MMBW was granted authority to prepare a metropolitan planning scheme through the passing of the *Town and Country Planning (Metropolitan Area) Act.*⁶⁷³ Subsequently, the MMBW's *Town Planning Committee* completed and released its first metropolitan "Master Plan" in August 1953⁶⁷⁴ (although it took another

⁶⁷¹ Clive Stoneham, VPD (Assembly), September 2 1959, 49-51.

⁶⁷² Barry Muir, Bolte From Bamganie, (Melbourne, 1973), 65.

⁶⁷³ Town and Country Planning (Metropolitan Area) Act 1949 (Vic).

⁶⁷⁴ E F Borrie, Melbourne Metropolitan Planning Scheme 1954 Report, (Melbourne, 1953).

ten years before the plan was considered by the parliament).⁶⁷⁵ Working with known population data the planning scheme estimated the metropolitan population would reach approximately two million persons by the beginning of the 1980s.⁶⁷⁶ Actually, the metropolitan population was expanding at a significantly higher rate and had practically reached two million during 1961.⁶⁷⁷ Regardless of a relaxed attitude towards metropolitan planning in the government the MMBW had little choice but to accept an unprecedented level of growth which in its view was capable only of being controlled, not halted.

[Figure ommitted for copyright purposes. Refer to Borrie, Melbourne Metropolitan Planning

Scheme 1954 Report, 23.]

Figure 5.6 – The MMBW's reflections on urban expansion - "Putting out of production more and more food producing areas" –. Source: E F Borrie, *Melbourne Metropolitan Planning Scheme* 1954 Report, 23.

⁶⁷⁵ Dingle and Rasmussen, *Vital Connections*, 241-242. The central reasons for the delay related to a lengthy period of submissions, objections and amendments, and a further delay when the plan was submitted to the Town and Country Planning Board for consideration and final approval.

⁶⁷⁶ E F Borrie, Melbourne Metropolitan Planning Scheme 1954 Report, (Melbourne, 1953), 22.

⁶⁷⁷ V H Arnold, Victorian Year Book – 1965, (Melbourne, Commonwealth Bureau of Census and Statistics, 1965), 112.

The pressures of unconstrained population growth resulted in the later years of the 1950s being routinely dotted by various water supply crises across Melbourne (the majority of which were the result of the constant expansion of the metropolitan area). The Age alleged that 'the Metropolitan Board has not been allowed to borrow enough money to keep pace with the growing demand.⁶⁷⁸ In the face of these pressures the MMBW looked to its newly appointed Engineer in Chief, Albert Ronalds to provide a comprehensive plan for expanding Melbourne's water supply network. Ronalds was a civil and municipal engineer originally from the Gippsland town of Drouin, and had previously worked for the Melbourne Harbour Trust, the SRWSC and the Snowy Mountains Authority. Appointed in 1955, Ronalds represented a conscious decision on behalf of the MMBW to move away from prioritising internal applicants for senior positions. Upon commencing his new role, Ronalds restructured Sewerage and Water Supply into three separate divisions comprising Design, Construction and Maintenance, and demonstrated a general willingness to discard organisational tendencies where they were based on outdated concepts, ideas and practices. Ronalds was further willing to exercise his role in a frank, fearless and even sometimes blunt manner – attributes that were clearly apparent throughout his report for the extension of the metropolitan water supply.⁶⁷⁹

The MMBW's investigation of potential new catchments to augment Melbourne's water supply was intended to establish a comprehensive solution to the limitations it confronted in preparation for an anticipated population of 5 million by the year 2000. Aware of the investigations, the Bolte government began to "meddle" at an early stage and attempted to preempt the report by stating to Parliament that Ronalds' investigation was likely to result in a firm submission which the government anticipated would include proposals for the utilisation

⁶⁷⁸ 'City's girth swells its thirst', Age (Melbourne), January 16 1958, 2.

⁶⁷⁹ Dingle and Rasmussen, Vital Connections, 227 and 394.

of the Thomson River and Aberfeldy River catchments. Moreover, the government regarded that any consideration of these catchments would require an equal consideration to the needs of 'the fast-developing Latrobe Valley.'⁶⁸⁰ However, the MMBW remained circumspect about the details of their investigations (a precaution likely taken to avoid any reactionary pronouncements from Bolte). Previously, the debate of an urban expansion report (produced by MMBW planners) was essentially shut down when Bolte moved in the final days of the parliamentary session to shift public attention away from any debate of investment in metropolitan infrastructure. This saw an attempt to "re-engage" with the electorate on his politically weaker issue of decentralisation through a proposal to create a joint-committee into the distribution of population.⁶⁸¹ However, the government's record on infrastructure investment was poor and to avoid being backed into a corner on the issue Bolte had made a pragmatic decision which caused significant embarrassment to the MMBW.

The 'Future Water Supply' report

The *Report on Future Water Supply of the Melbourne Metropolitan Area* was released by the MMBW in September 1962 and offered a sallow account of its preparedness for supplying water to a population of 2.5 million persons by 1972. Moreover, Ronalds' report suggested that Melbourne would need to prepare for a population of nearly 3.5 million by 1982, and 5 million by 'no later than the year 2000.'⁶⁸² Melbourne's supply network was approaching its theoretical limits in normal years of rainfall and in dry years the supply was bordering on insufficient. The situation facing Melbourne's supply was a direct consequence of the majority of post-war

⁶⁸⁰ Murray Porter, VPD (Assembly), September 9 1959, 117-118.

⁶⁸¹ Henry Bolte, VPD (Assembly), December 1 1959, 1738-39.

⁶⁸² Albert F Ronalds, Report on Future Water Supply of the Melbourne Metropolitan Area, (Melbourne, Melbourne and Metropolitan Board of Works, 1962), 1.

population and industrial growth being concentrated within Greater Melbourne (at the time approximately 725 km²). The area equated to roughly one third of one per cent of the total area of Victoria, yet it was approaching 70 per cent of the State's population and 'probably a higher percentage of the State's industry.⁶⁸³ The impact of continued growth at the anticipated rate of 3.5 per cent per annum would be a significant burden in terms of water supply unless the government approved an expansion of catchments available to the metropolitan area. Additional sources capable of meeting supply needs were both limited and heavily restricted by cost as a result of most neighbouring catchments having already reached a 'relatively high percentage of utilization.'684 Ronalds' report therefore identified four broad categories of additional supply: further regulation in existing catchments; accessing additional Yarra Valley catchments; diverting water from the Thomson River catchment, or; diverting water from the Goulburn River catchment. In the case of the existing catchments and the remaining unexploited catchments in the Yarra Valley, the yield of further exploitation was relatively low when compared with the high costs associated with regulating these catchments. Ronalds noted that in comparison to existing works, the output of any future exploitation in the area would be subject to high variability and produce minimal flows outside the wet seasons. As a result, pursuing supply in these areas would necessitate building larger reservoirs at a significantly higher cost. Proposals for regulating catchments higher up the Yarra at Starvation Creek and Big Pats Creek would cost £17,000,000 and £18,000,000 respectively. Such works were undoubtedly seen as necessary, though Ronalds emphasised that they could only form part of a wider programme of works if Melbourne's future water needs were to be adequately met.

⁶⁸³ Ibid, 5.

⁶⁸⁴ Ibid, 6.

Ronalds' report also pointed to an earlier investigation by the MMBW into the possibility of a diversion from the Thomson and Aberfeldy Rivers above their confluence, conducted in 1915.⁶⁸⁵ Later more detailed surveys revealed that there was potential for such a diversion to supply up to 600,000 persons. The MMBW had applied to the Cabinet in 1923 to vest the entirety of the Upper Yarra catchment and the entirety of the Baw Baw plateau within the MMBW's authority with the intention of reserving the Thomson and Aberfeldy catchments for metropolitan supply.⁶⁸⁶ However, the Cabinet ultimately decided against the MMBW's application in favour of an "exhaustive investigation" into the "advisableness" of retaining the catchments for future metropolitan water supply. Dingle and Rasmussen suggest that the principal reason for rejecting this application related to the MMBW's closed catchment policy and the fundamental point of disagreement this created between the MMBW, sawmilling interests, the Forests Commission⁶⁸⁷ and a state government committed to the protection of primary industry.⁶⁸⁸ As timber felling and sawmilling were the principal industries in the forests surrounding the Upper Yarra catchment and the Baw Baw Plateau, negotiating the future reservation of these catchments necessitated continued advocacy on behalf of the MMBW. Gradually, the government began to appreciate the Board's position, and in 1936 an agreement between the government and Australian Paper Manufacturers Ltd (enshrined in the Wood Pulp Agreement Act) which authorised the extraction of timber from surrounding forests

⁶⁸⁵ Ibid, 9.

⁶⁸⁶ Ibid.

⁶⁸⁷ As distinguished from the Royal Commission into Forests and Timber Reserves. The "Forests Commission" was the central agency of the Department of Forests and responsible for the management of State Forests including catchments.

⁶⁸⁸ Dingle and Rasmussen, Vital Connections, 142-145.

placed important conservation restrictions over the Baw Baw Plateau, including the Thomson and Aberfeldy catchments.⁶⁸⁹

Ronalds supported the MMBW's initial 1915 assessment of the catchments and suggested that 'present circumstances confirm the Board's forecast...that Thomson River water will be required for supply to the Melbourne metropolitan area and that ultimately it will be necessary to fully utilize the resources of this river in the best interests of the State.'⁶⁹⁰ He also recognised the diversity of demands that could be placed on the Thomson and Aberfeldy rivers as a result of irrigation and water supply requirements in East Gippsland and the Latrobe Valley. As a result, he recommended that 'it is essential that the combined catchments of the Thomson and Aberfeldy rivers above their confluence (near Walhalla) be permanently reserved for water supply purposes.'⁶⁹¹ Essentially, the Thomson proposal as it was presented in the report would yield by far the highest regulated flow for water supply purposes (approximately 370,000 megalitres per year) although it would also be deliverable at the significantly higher cost of £32,000,000. Ronalds further reasoned that 'even if Victoria's expected population increase could be effectively decentralised much of it would still require to be supplied from Goulburn and Thomson river water and probably at no less cost than bringing these waters to the metropolitan area.'⁶⁹²

692 Ibid, 16.

⁶⁸⁹ Wood Pulp Agreement Act 1936 (Vic) s 7.

⁶⁹⁰ Albert F Ronalds, Report on Future Water Supply of the Melbourne Metropolitan Area, (Melbourne, Melbourne and Metropolitan Board of Works, 1962), 10.

⁶⁹¹ Ibid, 11.
The 'Big River' proposal

The sheer cost of the other included proposals and an overall necessity to find savings where appropriate saw Ronalds also consider a diversion north of the dividing range. This focused on the Big River – a tributary of the Goulburn River upstream of the Eildon Dam (Figure 5.7 below – which also shows the proximity of the Acheron River relative to Melbourne's main water supplies). A tunnel diversion of 13.5 kilometres from the Big River catchment was estimated to deliver 76,000 megalitres per annum.⁶⁹³ The estimated cost of the diversion was a fraction of the other proposals at £4,500,000 and could be quickly completed. Ronalds conceded that the proposal would result in losses of available irrigation supply to farmers north of the divide, although he calculated that the losses would be less than the half the quantity diverted after factoring in ordinary operational losses along the irrigation distribution system.⁶⁹⁴ However, he favoured the proposed diversion as the stream was capable of providing large, reliable flows of a suitably high quality for domestic water supply. As a result Ronalds' priority recommendation to government was to make a "firm allocation for metropolitan industrial and domestic use" of up to 76,000 megalitres of water from the Big River catchment.⁶⁹⁵

⁶⁹³ Ibid, 13.

⁶⁹⁴ Ibid.

⁶⁹⁵ Ibid, 24.

[Figure ommitted for copyright purposes. Refer to 'Report on Future Water Supply of the Melbourne Metropolitan Area', Melbourne and Metropolitan Board of Works, 1962.]

Figure 5.7 – The Ronalds' proposal for Melbourne's water supply – Source: *Report on Future Water Supply of the Melbourne Metropolitan Area*, Melbourne and Metropolitan Board of Works, (Melbourne, July 1962).

Reactions to these proposals were intense and emotive. The dominant perspective among irrigators regarded any supply of country water to the city to be in contravention of the State's *moral obligation* to its people, and thereby they felt it was necessary to counter the MMBW's plan with its own 'overall plan for the area north of the divide.'696 The earliest and most prominent voices to the debate coming from more than 20 rural organisations mostly based in the north-east of Victoria including the Murray-Valley Development League, the Goulburn and *Waranga United Water Users' League* and the *Victorian Dairy Farmers' Association*.⁶⁹⁷ They insisted that 'if water is taken from the country the rural population will fall back so far that the consequences will adversely affect Melbourne.'698 The protests reflected the continued existence of an overriding attitude that favoured traditional agrarian ideals and the state-based systems that supported them. It was quite simple, the city had no *legal or moral right* to take water from the country. Prior to 1950 rural production had steadily grown and essentially kept pace with manufacturing, yet by 1955 the value of rural production compared to manufacturing had dropped to approximately 51 per cent in relative terms.⁶⁹⁹ Before 1950 it had been approximately 76 per cent. In contrast, industrial (and population) growth in Melbourne were increasing at a considerable rate and per capita water consumption in Melbourne was already 'lower than several other Australian cities including Sydney, Adelaide and Perth.'⁷⁰⁰ It was the MMBW's view that the growing pressures could only be alleviated and managed through sound planning that provided for the city's future needs.

⁶⁹⁶ 'Country conference opposed to water plan for Melbourne', Age (Melbourne), October 23 1962, 6.

⁶⁹⁷ 'Against over-divide water', Age (Melbourne), June 6 1963, 9.

⁶⁹⁸ Ibid.

⁶⁹⁹ Jonathan Chenoweth, 'Conflict in Water Use in Victoria, Australia: Bolte's Divide', *Australian Geographical Studies*, Vol 36(3) (1998), 252.

⁷⁰⁰ Dingle and Rasmussen, Vital Connections, 265.

Policy proposal, political response

Bolte referred the report to the *Parliamentary Public Works Committee* (hereafter 'PWC') in September 1962⁷⁰¹ and during the early stages of debate the government appeared to tentatively support the review of Melbourne's water supply. However, Labor portrayed the report as a clear example of Bolte's failure to support their proposals for decentralisation three years earlier⁷⁰² and the Country party emphasised the sanctity of "country water" and called on the government to reconstitute the metropolitan Board due to a "lack of continuity" resulting from the MMBW's municipal roots.⁷⁰³ The debate also assisted a wave of rural resentment focused on a perceived attitude that the city could "help itself" to country water whenever metropolitan supplies were insufficient:

The people of Melbourne wring their hands and say they are short of water. They have a lot to learn. If the Melbourne and Metropolitan Board of Works made a thorough examination of the water supplies available, it would be doing something tangible, instead of attempting to steal water from irrigators in the Goulburn Valley where the water is already committed for irrigation purposes and town water supplies.⁷⁰⁴

The Age editorialised that an "Insular country view on water supply" routinely resulted in overblown demands for decentralisation and had weakened the case for genuine supply issues to be considered on their merits.⁷⁰⁵ However, the unfortunate reality was that the MMBW largely appeared unprepared for engaging in such a debate. Whether through over-confidence in their report or naivety over the extent of urban/rural division on policy, Ronalds and the

⁷⁰¹ 'Committee to study water master plan', *Age* (Melbourne), September 11 1962, 20.

⁷⁰² Clive Stoneham, VPD (Assembly), September 26 1962, 447.

⁷⁰³ Herbert Hyland, VPD (Assembly), October 3 1962, 617-618.

⁷⁰⁴ George Moss, VPD (Assembly), October 3 1962, 647.

⁷⁰⁵ Age (Melbourne), 4 September 1962, 2

MMBW had not anticipated the concerted attacks levelled at it or the proposal to exploit northern flowing waters. Dingle and Rasmussen suggest that they failed to grasp 'the more obvious realities of Victorian politics.'⁷⁰⁶ In particular, they underestimated the closeness of the working relationship that had developed between the Premier and the Chairman of the SRWSC, Ronald East. ⁷⁰⁷

Bolte and East shared a similar vision of irrigated development, agricultural growth and the value of their contribution to broader economic growth in Victoria. East was an adamant advocate of irrigated development and with Bolte's support (which was a reflection of his political bias towards rural interests) they perpetuated a vision of rural water supply governance that was unashamedly (and sometimes aggressively) "developmentalist". Moreover, under East's chairmanship the SRWSC maintained a much closer relationship with the Premier's office than either before or after, and had significantly increased its political influence in the process. To this end, Bolte's premiership coincided with a continued expansion of the SRWSC's capital expenditure and storage capacity for rural water supply (Figure 5.8 below). Driven in part by a desire to increase the authority's guaranteed supply in times of drought, the expansions in storage capacity were ambitious (particularly the massive expansion of the Eildon Dam). However, the expansion accompanied associated increases in allotments of water rights, including an increase between 1954-55 and 1968-69 of more than '70 per cent in the average allotment of water rights...in the Goulburn-Murray irrigation system.'⁷⁰⁸

⁷⁰⁶ Dingle and Rasmussen, Vital Connections, 266.

⁷⁰⁷ Costar, *The Bohemian*, 227-241; Bolte first encountered East when he held the water supply portfolio in the LCP ministry led by Thomas Hollway.; see also: Houston, *Ministers of Water Supply*, 75-77.

⁷⁰⁸ Powell, Garden State, 231.



Figure 5.8 – SRWSC Storage Capacity and Capital Expenditure (Water Supply) 1945 -70 – Adapted from SRWSC Annual Reports.⁷⁰⁹

For the sheep farmer from Western Victoria the notion of bringing water to the land to improve pastures and sustain livestock was central to the existence of Victoria's primary producers. The earliest years on his own property ('Kialla') had been tough due to the poor condition of the land and the difficulties he experienced improving its productiveness.⁷¹⁰ Bolte thereby recognised the difference between rural water as a statistic and rural water as an asset. One of the LCP government's earliest gestures towards the SRWSC and the irrigators was the *Water (Irrigation) Act 1959* which included a measure that transferred the accrued losses of each

⁷⁰⁹ Graph information adapted from SRWSC Annual Reports: Victoria, Parliament, State Rivers and Water Supply Commission, Fortieth Annual Report 1944-45, Parliamentary Paper (no.10); Forty-Fifth Annual Report 1949-50, Parliamentary Paper (no.11); Fiftieth Annual Report 1954-55, Parliamentary Paper (no.21); Fifty-Fifth Annual Report 1959-60, Parliamentary Paper (no.31); Sixtieth Annual Report 1964-65, Parliamentary Paper (no.18); Sixty-Fifth Annual Report 1969-70 Parliamentary Paper (no.21), (Melbourne, Government Printer). While approximately 25 per cent of the expansion directly related to completion of the Hume Dam (a joint venture between the Victorian and New South Wales governments), the majority is attributable to the completion of large Victorian projects including the Eildon Dam on the Goulburn River catchment.

irrigation district to the State.⁷¹¹ In 1963 Bolte announced his favoured long-term programme of rural water supply expansion (the first time a state government had expressly introduced a "comprehensive" plan of rural water supply development in the history of the SRWSC). Its stated goal was to ensure the "continuity of works" throughout country Victoria.⁷¹² The investment pleased rural voters and the SRWSC Chairman, and directed the MMBW's attention to an inescapable truth – Bolte understood the political value of rural water supply.

Not "One Drop" – A Premier's Divide

The SRWSC submission over the proposed diversion of the Big River directed the PWC to consider the 'serious economic consequences and high cost to the State of obtaining replacement water for the Goulburn Valley and other parts of northern Victoria from other streams.⁷¹³ Powell suggests that the "serious economic consequences" were slightly exaggerated and had been "loosely added" to the MMBW's original calculations.⁷¹⁴ The post-war expansion, related increases in capital expenditure and close alliances between the SRWSC and the Bolte government had strengthened the SRWSC's sense of purpose and further indicated that the central objective of irrigated development remained fundamental to rural water supply governance. This was probably best exemplified when East "became irate" at the suggestion that increasing urbanisation reduced the need for continued irrigation development at a 1963 national water symposium.⁷¹⁵ The SRWSC was considered the leading developmental

⁷¹¹ Water (Irrigation) Act 1959 (Vic), s 2.

⁷¹² Houston, *Ministers of Water Supply*, 76; Victoria, Parliament, *State Rivers and Water Supply Commission: Fifty-Ninth Annual Report 1963-64*, Parliamentary Paper, (Melbourne, 1964), 9.

⁷¹³ Victoria, Parliament, The Parliamentary Public Works Committee on The Melbourne Metropolitan Future Water Supply Inquiry (Progress Report No 1), Parliamentary Paper (no.67), Melbourne, 1964, 10.

⁷¹⁴ Powell, *Garden State*, 242.

⁷¹⁵ Dingle and Rasmussen, Vital Connections, 265.

agency in Australia, and while any lasting connection to its nineteenth century liberal foundations were diminished it continued to display a frontier mentality, which further 'helped to legitimise the exaggerated public perception of the existence of a Great Divide.'⁷¹⁶ Any hope of a negotiated outcome with the MMBW was beyond question – the existence of the SRWSC was predicated upon making northern irrigation water accessible solely to northern irrigation interests.

During the course of the PWC inquiry the government had given little indication of its intentions and Bolte had avoided commenting on the issue. However, following the sudden death of then Minister of water supply, Wilfred John Mibus⁷¹⁷ Bolte assumed the water supply portfolio in advance of appointing a replacement. On the same day (22 April 1964) he made the famous statement to the media that not "one drop" of northern flowing water would cross the divide. Bolte argued that he could not allow the Big River diversion as proposed by the MMBW, and that his decision would stand 'even if such a plan were recommended by the State Parliamentary Public Works Committee.⁷¹⁸ The following day, Bolte announced that writs for the general election would be issued within three weeks in preparation for a poll in the final week of June.⁷¹⁹ The timing of announcements revealed an intention to bolster the LCP's committen to country Victoria. The decision also solidified the government's intentions to maintain its focus on irrigated development in country Victoria, rendering urban claims to the

⁷¹⁶ Powell, Garden State, 232.

⁷¹⁷ Houston, *Ministers of Water Supply*, 85-88. Several months before Mibus' death he had become the longest serving minister in the Water Supply portfolio. A farmer and grazier from Horsham, he had held the office since the first election of the Bolte government in June 1955. Within the government, Mibus oversaw the introduction of the Snowy Mountains Scheme, and brought to Cabinet the proposal to construct a dedicated head office for the SRWSC in Armadale.

⁷¹⁸ 'Premier will not let city have northern waters', *Age* (Melbourne), April 22 1964, 1.

⁷¹⁹ 'Hands off – water warning to be discussed', Age (Melbourne), April 23 1964, 5.

state's water resources as secondary. Blazey notes that Bolte had 'undoubtedly subordinated urban interests to those of the country.'⁷²⁰ The decision frustrated the PWC inquiry despite public assurances (from Bolte) prior to its commencement that no decision would be taken by the government until the matter had been "fully investigated".⁷²¹ This left the Committee with little choice but to abandon the Big River component of its investigations and resulted in some consternation directed at the arbitrary nature of Bolte's decision.

[Figure ommitted for copyright purposes. Refer to State Rivers and Water Supply

Commission, Sixtieth Annual Report', 1964-65, 32.]

Figure 5.9 – Henry Bolte, Thomas Darcy and Ronald East (Darcy was Minister for water supply 1964-67) – at the opening of Devilbend Reservoir. Source: State Rivers and Water Supply Commission, Sixtieth Annual Report 1964-65, page 32.

⁷²⁰ Blazey, *Bolte*, 236.

⁷²¹ 'Premier hits at water grab claim', Age (Melbourne), October 24 1962, 11.

[Figure ommitted for copyright purposes. Refer to 'The Age' (Melbourne), April 22 1964, 1.]

Figure 5.10 – Not "one drop" – Source: Age (Melbourne), April 22 1964.

Bolte further inflamed tempers when he suggested that his announcement to block the Big River proposal had been made "under provocation".⁷²² Ultimately, the Big River issue became a smaller component of a raft of rural-focused policies that featured in Bolte's 1964 election victory, with five pages of the Premier's pre-election policy speech dedicated to "rural matters". ⁷²³ The focus on rural policy was consistent with Bolte's long-standing bias towards country-oriented issues, although it is important to note that the relative economic stability of the time and an overriding theme of successful one-party government played considerably larger roles in the LCP's continued electoral success.⁷²⁴

⁷²² 'Govt. opposed Big River plan prior to inquiry', *Age* (Melbourne), April 24, 1964, 1.

⁷²³ Blazey, *Bolte*, 118.

⁷²⁴ Ibid, 118-120.

In the aftermath of Bolte's decision the MMBW was left with few options except to suspend all water supply planning and wait for the conclusion of the PWC inquiry. The PWC had no choice but to endorse Bolte's decision and stated that 'the proposal to divert part of the flow of the Big River, or any stream within the Eildon Reservoir catchment, for metropolitan use, is not favoured by the Committee.'⁷²⁵ The stalemate over Melbourne's future water supply between the MMBW and the Premier's office eventually became linked to equally visceral exchanges between them over metropolitan planning and freeway construction (powers that were given to the MMBW by Bolte in 1956). While the MMBW was able to proceed with its responsibilities over freeway planning and construction, Bolte's constant "interventions" were a further source of ire between the MMBW and the government. The extent of the discord was such that the Premier labelled the MMBW as "big unwieldy political forum" openly calling for its "reconstitution".⁷²⁶ When Bolte later appointed a "secret" committee of eight government MP's (*The Age* labelled them the "eight nameless men") to investigate the MMBW, both Labor and the Country Party sensed the Premier's political weakness and blocked the formation of the "recommended" parliamentary inquiry.

⁷²⁵ Victoria, Parliament, The Parliamentary Public Works Committee on The Melbourne Metropolitan Future Water Supply Inquiry (Progress Report No 1), Parliamentary Paper (no.67), (Melbourne, Government Printer, 1964), 13.

⁷²⁶ 'The water posse' (Editorial), *Age* (Melbourne), February 15 1968, 5; Dingle and Rasmussen, *Vital Connections*, 270-274; Dingle and Rasmussen give a thorough account of the period at the height of hostilities between the premier and the Board.

[Figure ommitted for copyright purposes. Refer to 'The Age' (Melbourne), February 15 1968,

Figure 5.11 – The "nameless committee" – Source: Age (Melbourne), February 15 1968.

The PWC's second report (1966)⁷²⁷ recommended a proposed reservoir on the Cardinia Creek on the outer fringes of Melbourne's south-eastern suburbs (put forward by Ronalds as a compromise), and its final report (1967) recommended the construction of the proposed Thomson Reservoir and diversion of the Aberfeldy River.⁷²⁸ As the primary reason for this recommendation the PWC argued that the waters of the Goulburn River system were "fully utilised". However, when drought returned to Victoria in 1967 and 1968 the metropolitan water supply dispute promptly escalated as water shortages in the metropolitan zone heralded a

⁷²⁷ Victoria, Parliament, The Parliamentary Public Works Committee on The Melbourne Metropolitan Future Water Supply Inquiry (Progress Report No.2), (Melbourne, 1966), 5.

⁷²⁸; Victoria, Parliament, The Parliamentary Public Works Committee on The Melbourne Metropolitan Future Water Supply Inquiry (Final Report), (Melbourne, 1967), 27.

considerable shift in public sentiment. The forceful nature of Bolte's earlier statements gave him few options to propose a resolution to the crisis, and Melbourne's press reminded the electorate of Bolte's determinative role on the issue:

There is no point in using the drought as an excuse for indulging in hindsight. But Melbourne's drastic water shortage emphasises our sad need of foresight. The stubbornness with which the Premier clings to his prejudices about the Big River is not a hopeful sign. According to the recommendations made by the Board of Works five and a half years ago, a diversion of Big River waters was the first essential step to ensure that Melbourne had an adequate water supply at the turn of the century...If scapegoats are to be sought for our plight, Nature is the only one available. But the Government must be held responsible for the dangers that threaten after 1969.⁷²⁹

Ultimately, the severity of the 1967-68 drought and public opinion forced Bolte's government to give the MMBW full control of its catchments and soon after the Cabinet approved an advanced construction timeline for the Thomson and Cardinia schemes (construction on the Cardinia Reservoir commenced in 1970 and completed in 1973; construction on the Thomson Reservoir commenced in 1976 and completed in 1983). Although, a later recommendation against the diversion of the Aberfeldy River was made by a joint agency study conducted between the SRWSC and the Board in 1980. That scheme was deferred indefinitely in 1984.⁷³⁰

Summary

Bolte's rejection of the Big River proposal is often seen in the context of the rural bias that featured so strongly throughout his premiership. From a purely political perspective, his ability to exploit the circumstances and combine a significant policy decision that favoured rural

⁷²⁹ 'A dry argument' (Editorial), Age (Melbourne), December 6 1967, 5.

⁷³⁰ Powell, Garden State, 275-277.

interests with the announcement of an election was a masterstroke. However, the decision played a far greater role in expanding the urban/rural water supply divide and strengthened the existing policy trajectory of rural water supply governance in Victoria. The proposal to transfer Big River water across the dividing range was (for the MMBW) a logical, economic consequence of managing Melbourne's rapid growth and the increased centralisation of population. However, for the SRWSC the objective of irrigated development (including the sanctity of northern-flowing waters to this objective) had come to define its whole outlook on rural water supply. Increased expenditure in the rural water sector during the post-war economic expansion had seen Bolte, the SRWSC (and its chairman Ronald East) become fixated on a perception of irrigated development that failed to acknowledge the more immediate supply concerns associated with metropolitan growth in Victoria. Moreover, as a result of this expansion and the close relationship between Bolte and the SRWSC's board, the authority had significantly increased its powerbase and enjoyed a greater level of independence in its decision making. Wider perceptions that rural claims to water resources were morally superior were also encouraged by the SRWSC and served to further entrench this position. Ultimately, Bolte's decision assisted in solidifying attitudes against inter-basin transfer across the Dividing Range and prevented Melbourne from accessing northern water for decades to come. Powell notes, 'as far as institutionalised attitudes to organisational procedures and ruling objectives were concerned, it served to perpetuate the status quo.⁷³¹

⁷³¹ Powell, *Garden State*, 243.

Institutional Design, Embedded Rules and Institutional 'Culture'

The divide between metropolitan and rural water authorities over water resources allocation offers an insight into one of the most dominant forces that has motivated decision making in rural water supply governance. In particular the organisation of governance arrangements between urban and rural use is revealing of an overall attitude that reflected prevailing nineteenth century assumptions concerning economic and social development and ranked "need" through a developmental lens. In effect, the following discussion suggests that this "starting point" of rural water supply governance was subject to the prevailing beliefs, ideals, and values that underscored and defended the central policy objective, *irrigated development*, as the dominant objective in all water resources decision making. The final section of this chapter explores the subject of the urban/rural divide in rural water supply governance according to an understanding of "fundamental" rules that represent the cultural foundations of political institutions, their embeddedness in institutional structure and relative influence over decision making. It employs a discussion of rule-based obligatory action as advanced by March and Olsen: 'To determine behaviour as driven by rules is to see action as a matching of a situation to the demands of a position...one of duties and obligations rather than anticipatory, consequential decision making.⁷³²

Rules, 'culture' and institutional design

In contrast to the concept of endogenous "preferences" (discussed in chapter four) that develop through the interpretation of rules (by actors) and later come to operate as self-reinforcing mechanisms on policy decisions, this chapter's consideration of the urban/rural divide draws focus to institutional activity based on the influence of "fundamental" rules that emerge in the

⁷³² March and Olsen, *Rediscovering Institutions*, 23.

earliest stages of institutional development. In this respect, the process of decision making can largely be influenced by the imposition of rules that are of cultural significance to the institution. North's conception of institutional "constraints" centres on the notion that continuity in decision making is dependent on an institution's "cultural traits" and he further notes that these have a "tenacious survival ability".⁷³³ "Rules" in this regard, convey "culture" and this is reflected by the capacity of institutions to transmit *knowledge and values that are fundamental to the institution*.⁷³⁴ The sociological school adopts an even broader approach, and Hall and Taylor have noted that this rests on breaking down the conceptual divide between "culture" and "institutions" through considering the influence of culture in providing "frames of meaning" (or potentially, as institutions in their own right) that guide human interaction.⁷³⁵ The events of this chapter advance a powerful example of an institutional culture reflective of the earliest stages of its design and development, and significant to the production of rules that later become deeply embedded within the institutional structure, providing templates that guide actor behaviour.⁷³⁶

Accepting that the cultural features of institutions are closely connected to the initial stages of development, they can also be expected to manifest as an expression of beliefs, values and ideals that are fundamental to the goals and objectives incorporated in the institutional structure. Goodin's combined notion of *revisability* and *robustness* as "desirable" principles to incorporate in institutional design indicates the overriding significance of forming of

⁷³³ North, Institutions and Economic Performance, 45.

⁷³⁴ R Boyd and P J Richerson, *Culture and the Evolutionary Process*, (Chicago, 1985), 2.

⁷³⁵ Hall and Taylor, *Three New Institutionalisms*, 947-948; See also: W Richard Scott, 'Institutions and Organizations: Towards a Theoretical Synthesis', in W Richard Scott, John W Meyer and Associates, *Institutional Environments and Organizations – Structural Complexity and Individualism*, (London, 1994), 55-80.

⁷³⁶ Steinmo, What is Historical Institutionalism, 169.

institutional structures for the precise reason that they constrain future political actors.⁷³⁷ It can certainly be expected that institutional design may incorporate (to an extent) a level of flexibility to ensure that the institution is "capable" of "necessary" change. However, it is equally important that the goals and objectives that are considered fundamental to the institution's essential function are preserved in order to bind later actors to "a certain course of action" and further ensure that they resist the temptation to "deviate" from that course of action.⁷³⁸ As a result, institutions are typically designed to be sufficiently robust so as to defend the 'assumptions upon which those institutions were predicated.⁷³⁹

Embedded rules and the appropriateness of decisions

The employment of these "assumptions" through specific institutional rules (both formal and informal), also allows institutions to transmit fundamental beliefs, values, ideals or even preexisting policy preferences. As a further reflection of the self-reinforcing nature of institutional development, rules may "start small" but increase in their overall significance to the institutional structure over time.⁷⁴⁰ In this way, the stage of institutional development can be seen to impact on a specific rule's level of embeddedness. Moreover, as Goodin notes, rules are "nested" in hierarchies 'with rules at each successive stage in the hierarchy being increasingly costly to change.⁷⁴¹ In this regard, rules that are culturally significant to the

⁷³⁷ Goodin, *Institutions and their Design*, 40-41. Goodin acknowledges that these principles essentially guide institutional design rather than define it. And, he also suggests that further principles such as a *sensitivity to motivational complexity* and the desire to incorporate *variability* in institutional arrangements are additionally influential in this respect.

⁷³⁸ Ibid; See also: Moe, *The Neglected Side of the Story*, 226-228.

⁷³⁹ Goodin, Institutions and their Design, 40.

⁷⁴⁰ Pierson, *Study of Policy Development*, 39.

⁷⁴¹ Goodin, *Institutions and their Design*, 23; see also: Pierson, *Politics in Time*, 144. Pierson notes that the higher the position in the hierarchy, the more likely it is that rules will require greater consensus in order to be adapted.

institution tend to occur higher in the hierarchy, and are likely to have developed earlier in the institution's existence. In the case of the Acheron River proposal the initial stages of the development of rural water supply governance were relatively proximate to the decisionmaking process regarding the proposed Acheron diversion. Despite Murray's close connection to the design of water legislation (and his significant administrative role), his initial reaction to the Acheron proposal was to concede that a diversion was likely and focused on ensuring that it would not unduly injure "rural interests". The Forest Commission emphasised that any transfer of water resources from the northern catchment was dependent on the needs of the city as a "last resort". However, in comparison, the initial ministerial position was unequivocal northern flowing waters were not available for exploitation by the MMBW. As a demonstration of a relative lack of agreement between the actors on this issue, later decisions continued to vary until the point of Swinburne's approval of a diversion in 1908 which imposed strict conditions that any diversion would remain entirely under the control of the SRWSC. These conditions supported what had developed into a central policy position - maintaining northern flowing waters as "rural" assets and further entrenching the primary objective of *irrigated* development. By this process, the notion of a divide between rural and urban water interests became firmly established within the hierarchy of rules concerning rural water governance.

In contrast to the relative uncertainty that marked the early stages of decision making over the Acheron, the proposal of the Big River diversion before the PWC in 1963 was immediately confronted by a wall of opposition including irrigator groups, political parties, the SRWSC and ultimately, Premier Bolte. The SRWSC was particularly solidified in its opposition to any suggestion of the inter-basin transfer of northern flowing waters for metropolitan use. The reactions to this challenge to the urban/rural divide were noticeably stronger and elicited a more forceful response. To this end, the response was reflective of a considerably greater level of

embeddedness. Previous governments had recognised that the notion of a divide was fundamental to the pursuit of irrigated development and along with the development of broader governance arrangements, it had become a culturally significant feature of the institution. As part two of this chapter notes, successive governments were reluctant to grant access to what were viewed as catchments associated with "rural industries" (indicated by the discussion of the Thomson-Aberfeldy proposals in 1923). Moreover, the Bolte government also appeared to guard against any claims by the MMBW over the Thomson and Aberfeldy catchments, and it was only after denying access to the Big River (closely followed by the significant impact of the 1967-68 drought) that the MMBW was granted access to these waters. In effect, the earlier decisions concerning the urban/rural water supply divide had established it as an aspect of governance that was particularly robust. This is indicative of Goodin's suggestion that institutions embody 'certain fundamental agreements in presumptively unchangeable rules'⁷⁴² to ensure a level of predictability and continuity in decision-making. Moreover, with time these rules tend to become deeply embedded in the institutional structure and more symbolic in their meaning to actors.

The decision to maintain the urban/rural water supply "divide" during the Bolte era was a reflection of rules that were fundamental to the institution, and simultaneously in direct opposition to the realities of urban expansion in Victoria (and the related pressures that were being faced by the Board). SRWSC chairman Ronald East vehemently opposed the proposal, and the SRWSC submissions to the subsequent PWC inquiry placed considerable emphasis on the potential for injury to northern interests. In effect, the justifications that applied to establishing the urban/rural water supply divide at its earliest stage had become wholly disconnected from the circumstances which were forcing it before government again during

⁷⁴² Goodin, Institutions and their Design, 23.

the Bolte era. In this regard, the actors that responded were constrained by an obligatory process of acceptance of the institutional rules, their objects and their application.⁷⁴³ As March and Olsen suggest 'rules are followed because they are seen as natural, rightful, expected, and legitimate. Members of an institution are expected to obey, and be the guardians of, its constitutive principles and standards.'⁷⁴⁴ Certain rules are tailored to certain "situations" and the process further requires matching a role to a situation in order to determine the "appropriate" course of action. To this end, identifying the appropriate course of action also involves accessing the ideals, values and beliefs that directly concern the circumstances of the situation. As a result, the content of the actors' response and preferences tend to reflect institutional cues that define the response that is "expected". From this perspective, actors not only see decisions according to "expectations" but they also fail to anticipate the consequences of their decisions.

Summary

Rural water supply governance in the Bolte era was undeniably connected to the advanced stage of water resources development in Australia, and to this end, the prevailing attitude was that irrigated development and increased agricultural water supplies were fundamental to economic growth. However, Bolte's declaration that not "one drop" of water would cross the northern divide was symptomatic of policy preferences that adhered to institutional "expectations". The earlier development of governance arrangements responding to the MMBW proposal for an inter-basin transfer of the northern flowing Acheron River, effectively resulted in the urban/rural water supply divide becoming firmly established within the hierarchy of rules concerning rural water supply governance. In effect, Bolte's decision was a

⁷⁴³ March and Olsen, *Rediscovering Institutions*, 38.

⁷⁴⁴ March and Olsen, *Elaborating Institutions*, 7.

demonstration of the advanced level of embeddedness of the urban/rural divide within the overall institutional structure.

Conclusion

This case study of Victoria's urban/rural water supply divide demonstrates how sufficiently embedded rules that reflect the "cultural" foundations of the institution subsequently become highly symbolic to later political actors. It is further illustrative of the constrained policy environment that develops from the imposition of a robust institutional structure. Focus has been placed on the analysis of separate proposals by the Melbourne and Metropolitan Board of Works to divert the northern flowing waters of the Acheron River and Big River. Both rivers are tributaries of the Goulburn River system. The chapter has further directed focus to the overriding notion of an urban/rural divide as a significant consequence of the formation of rural water supply governance in Victoria and the effective limits this has placed on the potential for the inter-basin transfer of water resources. The events surrounding the determination of the Acheron proposal highlighted a degree of uncertainty within the decision making process and demonstrated that the state government and concerned agencies were yet to adopt a fixed position on the inter-basin transfer of northern flowing water resources.

That position emerged under Swinburne and his proposed "conditional agreement" placed heavy restrictions on the MMBW's access to Acheron water's on the basis that northern flowing waters were primarily considered a rural asset. By the time the Bolte government was confronted with further proposals for the inter-basin transfer of water resources (concerning the Big River catchment) that position had solidified and an obvious divide was evident. This resulted in Bolte's famous statement that not "one drop" of northern flowing waters would cross the divide. The final section of this chapter considered these events through exploring the notion that "fundamental" institutional rules connected to the cultural foundations of political institutions in their early stages of development become deeply embedded within the institutional structure and highly symbolic to actors. It further considered decision making within this context according to what March and Olsen describe as "obligatory action" as a means of explaining the institutional pressures constraining the decision making process.

Chapter Six: Objective Shift - Reform and Realignment

This chapter considers Victoria's sustained period of rural water reform throughout the 1980s and 1990s. The preceding decades of agricultural expansion (where policies fixated on irrigated development remained unchallenged) approached their limits by the beginning of the 1980s. Unfortunately the lack of financial discipline inherent in these policies left a legacy of irrigation enterprises of low profitability, small farms, financially unviable irrigation authorities, ageing irrigation infrastructure, a large public debt, and environmental degradation through salinity and water logging. Any reform of irrigation would have to overcome this inheritance.⁷⁴⁵

As a case study of the reform of rural water supply governance, this chapter examines the realignment of governance arrangements through a comprehensive process of restructure and reorganisation, which facilitated a fundamental shift in the institutional structure of rural water supply governance. The chapter initially considers the instigation of managerialist administrative reform by the Public Bodies Review Committee following the failure of the Water Resources Council (an investigative body intended to provide independent water resources advice to the government). This is followed by the exploration of the convergence of rural water resources reform around sustainability issues characterised by the commencement of multiple land and water inquiries, and how this started a process of embracing economic rationalist and efficiency based policy devices. An investigation into the implementation of rural water supply reform in Victoria through the realignment of governance objectives connected with legislative and administrative measures, and then traces this process into the

⁷⁴⁵ John Langford, Christine Forster and Duncan Malcolm, *Towards a Financially Sustainable Irrigation System* – *Lessons from the State of Victoria, Australia*, World Bank Technical Paper No. 413, (Washington, 1999), 26.

federal realm of intergovernmental water reform agreements pursued by the Council of Australian Governments.

The final section of the chapter provides an analysis of the relative achievements of the rural water reform process in Victoria as a deliberate and comprehensive approach to institutional reform engineered into the mainstream political agenda. This analysis is built around the theoretical base of "paradigm shift" as advanced by Peter Hall. Hall argues that in advance of a paradigm shift, certain anomalies (or shocks) manifest as episodes of policy failure under the existing paradigm.⁷⁴⁶ Confronted with policy failure across multiple inputs, existing institutions are forced to accept alternative options.

Three anomalies are viewed as forming the basis of institutional shocks which disrupt the existing paradigm surrounding rural water supply governance, resulting in the formation of rationalist approaches to water management: the economic limits of rural water supply expansion; the increasing financial burden of existing supply systems; and, the rapidly expanding environmental costs of existing structures. This chapter argues that the robust institutional structure that had developed from the establishment of the legislative framework began to shift in response to these anomalies and a series of interrelated crises which forced a process of institutional "reform" and "realignment".

⁷⁴⁶ Peter A Hall, 'Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain', *Comparative Politics*, Vol 25(3) (1993), 280-281.

268

	1971	
	1972	
Standing Committee on Water Supply Cardinia Reservoir completed	1973	
	1974	
Water Resources Council	1975	Water Resources Act (1975)
Thomson Reservoir commenced	1976	
	1977	
	1978	
	1979	
Public Bodies Review Committee	1980	
	1981	
Election of Cain Government		
Salinity Committee	1982	Natural Resources and Environment Committee
Thomson Reservoir completed	1983	
South-western Regional Water Strategy Plan PBRC Final Report into Irrigation	1984	Water (Central Management Restructuring) Act (1984) (Formation of Rural Water Commission)
	1985	
Regionalisation (Phase One)	1986	Community Salinity Grants
First temporary transfer of water rights in Victoria	1987	Our Common Future: Report of the World Commission on Environment and Development
	1988	"Salt-Action" Salinity Initiative
	1989	Water Act (1989)
	1990	
	1991	
Dublin Statement on Water and Sustainable Development Future Management Review (Corporatisation of RWC) Regionalisation (Phase Two)	1992	COAG - First Meeting National Strategy for Ecologically Sustainable Development
	1993	
Catchment and Land Protection Act (1994) Formation of Catchment Management Authorities	1994	COAG Strategic Water Reform Framework
	1995	
	1996	COAG National Competition Policy

Figure 6.1: Chapter 6 Timeline

Administrative Reform in Victorian Water Management

The initial reforms to rural water supply authorities developed from a series of interrelated governance issues that impacted heavily on decision making and exacerbated concerns within government regarding a lack of accountability in rural water administration. At its lower levels rural water administration was dogged by issues of fragmentation, while general concerns regarding the policy dominance of the highly centralised SRWSC were also a prominent motivating force. In addition, a change of government in 1982 and pressures arising from a broad political shift towards managerial approaches to public administration would come to exert considerable influence over the structural and organisational reforms that followed in the rural water sector. The alignment of these issues was further reflected by the failed attempt to unite competing aspects of water management in Victoria behind a single statutory body.

In response to drought conditions affecting the state during 1972-73 (and the more immediate legacy of Bolte's urban/rural water supply "divide"), Rupert Hamer's⁷⁴⁷ government appointed a special *Standing Committee on Water Supply* in January 1973 to investigate and make suggestions for emergency plans and to provide a collective water resources management approach to the dominant policy issues.⁷⁴⁸ By 1975 the committee had been conferred with statutory authority and restructured within the broader framework of a new *Ministry of Water Resources and Water Supply*. The move was reflective of the continued influence from the

⁷⁴⁷ Rupert James Hamer (1916 – 2004) was Bolte's immediate successor, serving as premier between 1972 and 1981. He was born in Kew and educated at Melbourne Grammar and Geelong Grammar before studying law at Melbourne University. Often known as the "Urbane liberal" Hamer's government was "progressively liberal" and made significant policy inroads in the areas of the environment, the arts, administrative reform, and across a range of social policy fronts. Rodan notes that: 'Hamer was an authentic representative of the Deakinite element in non-Labor politics.' Paul Rodan, 'Rupert 'Dick' Hamer: The urbane liberal', in Paul Strangio and Brian Costar, *The Victorian Premiers 1856-2006*, (Annandale, 2006), 294.

⁷⁴⁸ Ian Day, 'State Govt. to try rainmaking', *Age* (Melbourne), January 9 1973, 2; Victoria, State Rivers and Water Supply Commission, SRWSC – Sixty-Seventh Annual Report 1972-73, Parliamentary Paper (no.1), (Melbourne, 1974), 7.

Bolte era, and the government's principal focus was to bring the SRWSC and the MMBW into a single ministry. This was argued on the basis that 'the many competing interests and the increasing pressure for water, sewerage and drainage services should receive the attention of one over-all body.⁷⁴⁹ The *Water Resources Council* (hereafter 'WRC') was expected to 'investigate and advise the Minister generally on matters pertaining to the water resources of the State or to water supply, drainage or sewerage throughout the State referred to it by the Minister.⁷⁵⁰ As it turned out, the creation of the WRC had little impact on the management of inter-agency issues, and the new body's role became significantly more difficult as a result of inadequate resources and an inability to provide effective advice on issues of the day or offer independent responses on complex technical water resource issues.⁷⁵¹ Consequently, the SRWSC and the Metropolitan Board – with years of accumulated resources and expertise – continued to directly advise the government on major policy issues, effectively neutering the WRC. According to Paterson, 'the initiatives of the ministry, to all intents and purpose, came to nothing.⁷⁵²

Reform by parliamentary review – the 'Public Bodies Review Committee'

The abject failure of the WRC fuelled larger government concerns regarding the size, cost and number of statutory water authorities, and ultimately resulted in legislation to assess public bodies, expecting them to account for all "activity and expenditure" and provide justification

⁷⁴⁹ Roberts Christian Dunstan, Victorian Parliamentary Debates (*VPD*), (Assembly), March 4 1975, 194. Over the two years it operated the committee's reports were considered to be both objective and clear in their reasoning, and the exercise demonstrated the potential value of a coordinating body overseeing the state's water resources policy.

⁷⁵⁰ Water Resources Act 1975 (Vic), s 7.

⁷⁵¹ Department of Water Resources Victoria, Water Victoria: A Scarce Resource, (Melbourne, 1992), 4.

⁷⁵² John Paterson, 'Water planning: A new start in Victoria', in W R D Sewell, J W Handmer and D I Smith, *Water Planning in Australia: from myths to reality*, (Canberra, 1985), 126.

for their continued existence.⁷⁵³ The Parliamentary Committees (Public Bodies Review) Act 1980⁷⁵⁴ saw the creation of a bi-partisan joint-select parliamentary committee for the purposes of reviewing the structure and operation of public bodies referred to it by the Governor in Council. The Public Bodies Review Committee (hereafter 'PBRC') was afforded 'unprecedented staff resources and an initial brief to review the ambit of statutory authority activities.'⁷⁵⁵ In the process of the review of a nominated public body the Act allowed the PBRC to inquire into matters it determined as relevant to the body's continued existence. The legislation offered several "suggested" matters for the PBRC to consider, three of which were particularly significant: whether or not the objects of the body are worth pursuing in contemporary society; whether or not the structure of the body is suited to the activities it performs.⁷⁵⁶

The PBRC represented a significant departure from previous examples of the parliamentary review of statutory bodies. Specifically, a sunset clause (the first of its kind in Australia) was incorporated in the enabling Act and empowered the PBRC – when reviewing bodies referred to it – to produce a recommendation that the body cease to exist.⁷⁵⁷ The government intended to streamline Victoria's bloated public bodies sector as it was 'poorly understood, diverse in

⁷⁵³ Robert Maclellan, VPD, (Assembly), November 27 1979, 5051.

⁷⁵⁴ Parliamentary Committees (Public Bodies Review) Act 1980 (Vic).

⁷⁵⁵ Paterson, A new start in Victoria, 126.

⁷⁵⁶ Parliamentary Committees (Public Bodies Review) Act 1980 (Vic) s 2 (inserted s 48c (5) to the principal Act).

⁷⁵⁷ *Parliamentary Committees (Public Bodies Review) Act 1980* (Vic) s 2 (inserted s 48f to the principal Act); Robert Maclellan, *VPD*, (Assembly), November 27 1979, 5051. In bringing the Bill, the government stated that the purpose of the clause was to ensure that all government boards, agencies and committees were prevented from continuing "*ad infinitum*".

the extreme and highly fragmented.⁷⁵⁸ Much of the political debate in the latter years of the 1970s had concerned the relative power and distinct absence of accountability of Victoria's *Quangos*⁷⁵⁹ that conducted their business "arms-length" from the government. Australian government's (State and Federal) have a long and pronounced history of establishing external agencies and statutory corporations that acted as "instruments of government enterprise" extending back to the creation of colonial land boards and railway commissions.⁷⁶⁰ As the domain of post-war governments gradually increased, the ability to maintain adequate checks and balances on these statutory authorities diminished. The arrival of the PBRC signalled a new era in Victoria that would underscore a broad performance review of these public sector authorities according to prescriptive standards of efficiency, economy and accountability.

New managerialism, economic rationalism, and the Cain labor government

In the years preceding the PBRC it had become clear that many government ministers and their corresponding departments had great difficulty identifying the bodies within their responsibility.⁷⁶¹ On the question of financial accountability the lack of auditing and oversight evident in state budget papers highlighted the extent of the problem. According to the PBRC's first Chairman Kevin Foley, 'in the 1976 budget "explained" items, often comprised more than

⁷⁵⁸ Kevin Foley, 'Policy Analysis by Parliamentary Committee: The Origins, Methodology and Significance of Victoria's Public Bodies Review Committee', paper presented to the Australasian Political Science Association (August, 1981), 2.

⁷⁵⁹ The use of "Quangos" as a generic term to describe a myriad of statutory authorities, non-governmental organisations, and non-departmental authorities, is the product of a complicated and overly politicised history of the acronym's original usage. In particular, Wettenhall has noted that none of the bodies investigated by the Public Bodies Review Committee can truly be called Quangos. However, to be consistent with the parlance of the time this thesis uses the term in its original form; See R L Wettenhall, 'Quangos, Quagos and the Problems of Non-Ministerial Organization', *Australian Journal of Public Administration*, Vol 42(1) (1983), 5-52.

⁷⁶⁰ R N Spann and Ruth Atkins (eds.), *Public Administration in Australia*, (Sydney, 1973), 192-193.

⁷⁶¹ E W Russell, 'Ministerial and Parliamentary Accountability of Public Bodies', in S R Davis et.al, *Quangos: the problem of accountability*, Centre of Policy Studies Seminar – Monash University, (1982), 41.

50 per cent of an allocation under "Other" and "General Expenses".⁷⁶² Foley emphasised the PBRC's role in implementing adequate accountability processes to improve the overall machinery of government, and to this end, the PBRC in many respects followed on from Henry Bland's reasoning that 'organisational and efficiency techniques long practised in industry should be applied to government.⁷⁶³ The PBRC's consideration of "new managerialist" ideas in the assessment of Victoria's water bodies reflected the broader acknowledgement of managerialism as a central feature of public sector reform in Australia from the late 1970s onwards.⁷⁶⁴

The election of the Cain government in 1982 (the first Labor government in Victoria for 27 years) followed a campaign where both the Liberal and Labor parties had declared the intention to reign in Victoria's public bodies. As the son of a former Labor Premier and the leader of a party with a tumultuous past, the premiership of John Cain jnr was "shadowed by history". An astute and talented man, he received his secondary education at Scotch College in Hawthorn before studying law at the University of Melbourne, and entering private legal practice in the Melbourne suburb of Preston.⁷⁶⁵ Cain was known for his actions as a Labor party reformer throughout the 1960s and 1970s, a virtue he subsequently carried with him into government. His Ministry's approach to government was rooted in the pursuit of "consensus" and

⁷⁶² Kevin Foley, 'Victoria's Quangos: The 1980s and Beyond', in S R Davis et.al, *Quangos: the problem of accountability*, Centre of Policy Studies Seminar – Monash University, (1982), 28.

⁷⁶³ Victoria, Parliament, Final Report of The Board of Inquiry into the Victorian Public Service, Parliamentary Paper (no.22), (Melbourne, Government Printer, 1976), 51; Rupert Hamer was the driving force behind the appointment of Henry Bland "as a one man board of inquiry" to review the public service in Victoria.

⁷⁶⁴ Lionel Orchard, 'Managerialism, Economic Rationalism and Public Sector Reform in Australia: Connections, Divergences, Alternatives', *Australian Journal of Public Administration*, Vol 57(1) (1998), 21; Christopher Hood, 'A Public Management for all Seasons', *Public Administration*, Vol 69(2) (1991), 3-19.

⁷⁶⁵ Paul Strangio, 'John Cain jnr: the burden of history', in Paul Strangio and Brian Costar, *The Victorian Premiers 1856-2006*, (Annandale, 2006), 325-327.

consultation with related interests, the party and the bureaucracy.⁷⁶⁶ However, the new government also signalled early that departments and statutory authorities would be subject to "specific management objectives", "efficiency audits" and "modern techniques of financial management".⁷⁶⁷ In particular, a triumvirate of Labor Unity faction members in the government (Rob Jolly, Steve Crabb and David White) who had sat on the PBRC since its formation, 'embraced a heady mix of economic theory and managerialist organisational theory and practice.'⁷⁶⁸ Jolly, Crabb and White were respectively given the portfolios of Treasury, Transport and Water Resources and each came to perform key roles in a reform-focused Cain government. In delineating his government's approach to Ministry and Cabinet, Cain likened the role of the individual minister to the corporate concept of an "Executive Director" who would share "collective responsibility" for Cabinet decisions.⁷⁶⁹ The implementation of managerial systems as a component of Cabinet and central agency reform along with the introduction of the "Senior Executive Service" all reflected an overall push to utilise managerialist ideals in order to bring about greater accountability within government.⁷⁷⁰

Despite the new Ministry's unapologetic managerialism and corporate philosophy towards the structures of government, it largely embraced a traditional interventionist approach of substantial investment in capital projects and targeted increases in taxation.⁷⁷¹ In his own

⁷⁶⁶ John Cain, John Cain's Years – Power, Parties and Politics, (Carlton, 1995), 39-41.

⁷⁶⁷ Paul Chadwick, 'ALP: We will get tough on PS bodies', Age (Melbourne), January 1 1982, 5.

⁷⁶⁸ Rosemary Kiss, 'A Hard Road: Transport Policy', in Mark Considine and Brian Costar, *Trials in Power – Cain, Kirner and Victoria 1982-1992*, (Carlton, 1992), 164.

⁷⁶⁹ John Halligan and Michael O'Grady, 'Public Sector Reform: Exploring the Victorian Experience', *Australian Journal of Public Administration*, Vol 44(1) (1985), 39.

⁷⁷⁰ Mark Considine, 'Labor's Approach to Policy Making', in Mark Considine and Brian Costar, *Trials in Power* – *Cain, Kirner and Victoria 1982-1992*, (Carlton, 1992), 189-198.

⁷⁷¹ Strangio, John Cain jnr, 331.

words, Cain's economic strategy was to "prime the pump".⁷⁷² The government envisaged its role as considerably more economically active than its predecessors, and therefore considered itself fundamentally obligated to "promote and stimulate" private sector activity.⁷⁷³ In comparison to the Hawke/Keating Federal Labor government's commitments to financial and economic deregulation, reduced spending, reduced public sector borrowing and smaller government, Victorian Labor's strategy appeared as a throwback to the post-war Keynesian consensus. Kenneth Davidson has highlighted that at the centre of Cain-Labor's strategy was a clear focus on 'identifying and enhancing Victoria's competitive strengths which would create the environment in which "leading" industries, capable of generating "export" revenue would prosper and expand.⁷⁷⁴

However, in contrast to other policy areas the government's reform strategy for rural water supply represented a shift from this approach, particularly as managerialist reforms in rural water supply began to stimulate broader structural, organisational and objective shifts. In many respects the approach to rural water reform in Victoria reflected the beginning of the decline of interventionist government in rural water supply and the rise of an economic rationalist reform agenda. Michael Pusey notes that the rise of economic rationalist ideas during this period accompanied a fundamental shift in relation to the orientation of the state: 'with the shift to the new reformist discourse of economic rationalism, our political administrators take up a different orienting assumption that gives the steering functions of the economic system primacy

⁷⁷² Cain, John Cain's Years, 146.

⁷⁷³ Jean Holmes, 'State Enterprise and Labor in the Eighties', in Allan Peachment (Ed), Westminster INC - ASurvey of Three States in the 1980s, (Annandale NSW, 1995), 11-12.

⁷⁷⁴ Kenneth Davidson, 'The Victorian Economy and the Policy of the Cain/Kirner Government', in Mark Considine and Brian Costar, *Trials in Power – Cain, Kirner and Victoria 1982-1992*, (Carlton, 1992), 37.

over both the state and civil society.⁷⁷⁵ Victorian water reform in the 1980s gradually echoed these notions and openly challenged nearly a century of rural water administration (and its focus on continued economic and social prosperity through irrigated development).

The appointment of David White to the Water Resources portfolio in the first term of the Cain government demonstrated an intent to bring about distinctive change. White was an important Labor Unity powerbroker, a senior member of Cabinet, and known to be a "corporate managerial enthusiast".⁷⁷⁶ Soon after, the government appointed Dr John Paterson to the position of Director-General of the Department of Water Resources. Paterson had previously worked as an urban economist before being appointed chief executive of the Hunter District Water Board where he implemented user-pays pricing.⁷⁷⁷ In the Victorian setting, he would become the first to 'establish the policy and operational frameworks for water reform in Australia.'⁷⁷⁸ Under the influence of White and Paterson, rural water resources governance in Victoria shifted towards resolving the perceived failures of irrigated development through improvements to water use efficiency, the maximisation of economic returns, user-pays pricing and micro-economic reform devices.⁷⁷⁹

⁷⁷⁵ Michael Pusey, *Economic Rationalism in Canberra: A Nation-Building State Changes its Mind*, (Oakleigh, 1991), 225.

⁷⁷⁶ John Murphy, 'The Politics of Pain: Health Policy under Cain and Kirner', in Mark Considine and Brian Costar, *Trials in Power – Cain, Kirner and Victoria 1982-1992*, (Carlton, 1992), 174.

⁷⁷⁷ Gary Tippet, 'Controversial health chief dies at 60', *Age* (Melbourne) February 28 2003, Retrieved: <u>http://www.theage.com.au/articles/2003/02/27/1046064164885.html</u>, (May 21 2016) ; see also; Institute of Public Administration Australia, IPAA Victoria Annual Report 2002-2003, (Melbourne, 2003), 7, Retrieved: <u>https://www.vic.ipaa.org.au/document/item/15</u>, (May 21 2016).

⁷⁷⁸ Institute of Public Administration Australia, IPAA Victoria Annual Report 2002-2003, (Melbourne, 2003), 7, Retrieved: <u>https://www.vic.ipaa.org.au/document/item/15</u>, (May 21 2016).

⁷⁷⁹ David Ronald White, VPD (Council), December 2 1983, 1566-1567.

[Figure ommitted for copyright purposes. Refer to http://www.parliament.vic.gov.au/ &

https://www.vic.ipaa.org.au/.]

Figure: 6.2 – Photographs of David White (left) and John Paterson (right) – Sources: <u>http://www.parliament.vic.gov.au/</u> & <u>https://www.vic.ipaa.org.au/</u>

Structure, efficiency and accountability

The referral to the PBRC of rural water administration indicated a considerable level of government unrest surrounding the extent of SRWSC control over water resources decision making in the State. As the majority of rural water sector activity occurred under the authority of the SRWSC, it was seen as a major factor in the administrative fragmentation that had overtaken rural water governance.⁷⁸⁰ The PBRC specifically noted that on the issue of accountability, the sector required 'a more ordered set of control relationships, and a less fragmented and diffused industry structure.⁷⁸¹ It became clear that there was a need to acknowledge the "functional interdependence" of decision-making within the context of the broader water cycle. This was further magnified in the context of regularly occurring droughts

⁷⁸⁰ By 1980 the size, extent and number of the 375 rural water authorities (including the SRWSC) operating in Victoria had effectively placed them beyond the reach of any practical ministerial oversight.

⁷⁸¹ Victoria, Public Bodies Review Committee, Future Structures for Water Management – Part One: Regional and Local Administration, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1981), 5.

(as the State had experienced again towards the end of the 1970s and in 1982-83). Each aspect of the review confirmed that rural water supply governance was actually disaggregated across a multitude of authorities that prevented any effective planning or policy to occur at the State level. While the SRWSC broadly controlled storage, supply and "development", administration across most other aspects of rural water governance was highly fragmented. To this end, the PBRC noted that 'the criterion of effective water management requires a structure which is geographically and functionally coherent, and in which the management roles of each administrative tier are well defined.'⁷⁸²

Organisation and objectives

The combination of independent reviews of the State's rural and regional water authorities and the PBRC's own investigations, produced six reports relating to future structures for water management. Much of the discussion was directed towards the "effectiveness" of public bodies through assessing whether they had achieved necessary objectives. Touche Ross established that 'a clear statement of the purpose and objectives of each public body is an essential prerequisite to the development of appropriate reporting standards.⁷⁸³ Early in the inquiry the SRWSC had been heavily criticised for preparing a background paper detailing the SRWSC's role in water management that offered no list of objectives by which the authority's performance could be measured.

⁷⁸² Ibid, 22.

⁷⁸³ Victoria, Public Bodies Review Committee, Report on a Study of the Audit and Reporting Responsibilities of Public Bodies in Victoria – with particular reference to water, sewerage, drainage and river improvement trusts and authorities (Touche Ross Services Pty.), (Melbourne, Government Printer, March 1981), 18.

[Figure ommitted for copyright purposes. Refer to 'Annual Report of the State Rivers and

Water Supply Commission 1979-1980', 8.]

Figure 6.3: "The Objects of the Commission" Source: Annual Report of the State Rivers and Water Supply Commission 1979-1980, page 8.

The SRWSC promptly prepared a broad statement of objectives at the beginning of the next annual report it submitted to the Parliament (Figure 6.3 above). However, the list omitted references to the SRWSC's financial and economic objectives, and curiously, failed to articulate the previously significant role of the SRWSC in the development of rural water supply and irrigated closer settlement throughout country Victoria. In many respects the omission of any reference to its previously renowned role over irrigated development represented an admission that the SRWSC's fundamental operational objectives were in need
of adjustment. The Neilson report on *Irrigation Management in Victoria* confirmed that Victorian rural water supply was entering a new phase. 'The State Government has not explicitly indicated in recent policy documents that it does not propose to develop new public systems of irrigation in Victoria. However, this is generally understood to be the case, and that understanding is reflected in the Commission's objectives.'⁷⁸⁴ Moreover, the analysis of SRWSC internal statements of objectives indicated a similar 'policy of maintaining and enhancing existing public systems of irrigation rather than expanding those systems or creating new irrigation districts.'⁷⁸⁵ This knowledge, in part, guided the PBRC's recommendation that the "SRWSC cease to exist" and that the overall structure of rural water governance be relocated into a new Department of Water Resources.⁷⁸⁶

In many respects the PBRC review confirmed a key feature of rural water supply under SRWSC administration, being that state-sponsored irrigation was more akin to a public service and not driven by considerations of economic viability. Moreover, the review had exposed it as an inward looking and reactive organisation. 'The Commission's perception appears to be that it <u>must</u> serve identifiable needs, or solve identifiable problems, and that its responsibility really only extends to establishing the most cost-effective way of proceeding.'⁷⁸⁷ The combination of the inward looking nature of the body and its limited commercial focus were considered detrimental to long term irrigation management. Ultimately, the PBRC had

⁷⁸⁴ Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria (Neilson Associates), (Melbourne, Government Printer, October 1981), 69.

⁷⁸⁵ Ibid, 70.

⁷⁸⁶ Victoria, Public Bodies Review Committee, Future Structures for Water Management Volume 3 – Final Report: The Central and Regional Management of the Water Industry, Parliamentary Paper (no. D3), (Melbourne, Government Printer, 1983), 61-62.

⁷⁸⁷ Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria (Neilson Associates), (Melbourne, Government Printer, October 1981), 174.

recommended that the functions of the SRWSC should be brought within a conventional departmental structure emphasising direct lines of ministerial accountability and financial control. In addition, it favoured a policy-based, whole of industry focus for the new department, recommending the gradual devolution of its water retailing functions from central control to separate, regional self-managed bodies.⁷⁸⁸

The Cain government, opting for a "fresh approach" enacted the Water (Central Management Restructuring) Act, establishing a new *Department of Water Resources* (hereafter 'DWR') and abolishing the SRWSC in favour of a *Rural Water Commission* (hereafter 'RWC'). In making the changes, the government highlighted the combined failure of rural water management under the existing Ministry of Water Resources and the SRWSC: 'The changes proposed therefore do not reflect on the technical and managerial competence of the State Rivers and Water Supply Commission. *Rather, they reflect the need for new institutional arrangements to achieve management reform.*' [*Emphasis Added*]⁷⁸⁹ The RWC was to be administered by a board of management appointed by the Minister and including five external representatives from irrigator, water user and industry groups.⁷⁹⁰ It replicated the main functions of the SRWSC in the management of the irrigation supply system and as the central rural water services provider. This enabled the DWR to maintain a broader focus concentrated on state wide policy research, development, review and monitoring, strategic planning (including development and management of the state water planning process) and the development of a flood plain management policy including priorities and funding. Further, the RWC was tasked with

⁷⁸⁸ Victoria, Public Bodies Review Committee, Future Structures for Water Management Volume 3 – Final Report: The Central and Regional Management of the Water Industry, Parliamentary Paper (no. D3), (Melbourne, Government Printer, 1983), 62.

⁷⁸⁹ John Hamilton Simpson, VPD (Assembly) March 8 1984, 3181.

⁷⁹⁰ Water (Central Management Restructuring) Act 1984 (Vic) s 20(3).

coordinating salinity control policy, water resource data analysis and evaluation, and operated as the coordinating body for policy engagement over the River Murray and the development of catchment management policy.⁷⁹¹ The structural and organisational reforms represented a significant shift away from the arrangements that had largely been in place since the passage of the *Water Act* (1905), and according to Paterson they were 'among the most sweeping and radical ever attempted by any Australian government in peace time.'⁷⁹²

Summary

The failure of the WRC towards the end of the 1970s confirmed the shortcomings of the monolithic and highly centralised SRWSC. In particular, the exercise demonstrated that the existing administrative arrangements were roadblocks to effective ministerial oversight of water resources decision making. The events reflected wider concerns regarding the lack of accountability within the administration of rural water supply, resulting in the formation of the PBRC. The ensuing review highlighted significant issues of administrative fragmentation, and poor organisational objectives to effectively guide internal decision-making at the SRWSC and subordinate water bodies. Moreover, the SRWSC was highly criticised for its reactive and inward looking organisational focus. Structural reform at the administrative level ensured that the Minister had direct control of policy matters concerning the RWC, and further required the Commission to act on policy directions and report its actions to the Minister.⁷⁹³ Moving to a ministerially appointed board dispensed with the traditional SRWSC practice of grooming in house administrators for senior appointments. This enabled an expansion of water management appointments from external agencies continued through the recruitment of economists and

⁷⁹¹ John Hamilton Simpson, VPD (Assembly) March 8 1984, 3184-3185

⁷⁹² Paterson, A new start in Victoria, 132.

⁷⁹³ John Hamilton Simpson, VPD (Assembly) March 8 1984, 3187.

policy specialists from outside water management.⁷⁹⁴ The structural and organisational reforms opened the door for a broader shift from a developmental focused approach to one that engaged a wider array of interrelated aspects of water resources management. This reflected an increased political desire for broad ranging water resources reform that gradually emerged through a convergence focused on the economic and environmental costs of irrigation projects, and growing concerns regarding the sustainability of irrigation development.⁷⁹⁵

Sustainability, Efficiency and Rural Water Reform

The initial reforms driven by the PBRC in the early 1980s had increased the exposure of many failings contingent to a system that was geared towards development at every level. There was a greatly increased awareness that: 'the development of administrative systems of water allocation, coupled with subsidised prices...have progressively been capitalised into farm values.'⁷⁹⁶ This of course reinforced key interests into placing a continual emphasis on increased storages and further development of water supply systems. DWR conceded that the rural water supply sector's development driven focus had caused considerable "resource degradation" and began the move towards state-wide water resources management and planning.⁷⁹⁷ However, this process also reflected that a convergence of economic, environmental and social visions of sustainability was exerting a greater influence over the water reform trajectory. Freebairn notes that the combination of sustainability issues (including

⁷⁹⁴ Smith, Water in Australia, 184.

⁷⁹⁵ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 26.

⁷⁹⁶ Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria (Neilson Associates), (Melbourne, 1981), 97.

⁷⁹⁷ Victoria, Department of Water Resources, Third Annual Report, (Melbourne, Government Printer, 1987), 2.

increased demand from competing uses complicating the allocation of limited water resources, concerns for water supply costs recovery and growing concerns regarding water for the environment) had become pressing matters within a 'broader economy-wide program of microeconomic reform.'⁷⁹⁸ These factors provided the motive for a significantly greater rationalisation of the administrative arrangements, and the acceptance of a series of reforms to rural water governance.

The convergence of water resources reform around sustainability issues was characterised by the commencement of multiple land and water related inquiries in the early 1980s. Across Australian government sectors there was increasing recognition of the interdependence between water resource management and the policy impact from other resource areas (such as "land, forests and minerals").⁷⁹⁹ In addition to the PBRC's extensive investigations (including several reports focused on economic efficiency), the formation of the Natural Resources and Environment Committee, and the Salinity Committee were further indicative of an intention to address the issues associated with land and water resources holistically. Moreover, their formation was reflective of a growing awareness of environmental considerations in water resources management. This shift in priorities along economic, social and environmental lines was also the result of reforming the institutional structure and introducing new management arrangements which appropriately recognised existing and emerging demands on the rural water sector.⁸⁰⁰ As Langford, Forster and Malcolm contend, 'the need for reform was now

⁷⁹⁸ John Freebairn, 'Principles for the Allocation of Scarce Water', Policy Forum: Water Pricing and Availability, *The Australian Economic Review*, Vol 36(2), 206-207.

⁷⁹⁹ W R D Sewell, 'Comprehensive Water Planning: An Agenda for Change', in W R D Sewell, J W Handmer and D I Smith, *Water Planning in Australia – From Myths to Reality*, (Canberra, 1995), 4.

⁸⁰⁰ Mulligan and Pigram, Water Administration in Australia, 51.

evident to those in power in Victoria, and the political will to take difficult decisions was strengthened.⁸⁰¹

Environmental water and catchment management

The formation of the *Natural Resources and Environment Committee* (hereafter 'NREC') in 1982 came about as part of alterations to the parliamentary committee structure through the passing of the *Parliamentary Committees (Joint-Investigatory Committees) Act.*⁸⁰² Echoing growing concerns about the significant environmental impacts of development, the government highlighted that the new committee would specifically address 'conservation and environmental issues, and existing or proposed works that may have a significant effect on the resources of the State or the environment.'⁸⁰³ By mid-1984 the committee commenced work on the *South-western Regional Water Strategy Plan* which incorporated an earlier PWC inquiry into the water supply needs of the Geelong region. Its investigations were later expanded to include all aspects of water resources management, floodplain and drainage management, and salinity mitigation.⁸⁰⁴ The regional strategy plan essentially operated as a pilot program for testing various strategies in the development of long term practices for the regulation of water supply and environmental needs.⁸⁰⁵ The focus on regionalisation echoed the government's

⁸⁰¹ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 26.

⁸⁰² The NREC combined the functions of the Public Works Committee, State Development Committee and the Conservation of Energy Resources Committee into a single structure.

⁸⁰³ Thomas Roper, VPD (Assembly), June 17 1982, 1476.

⁸⁰⁴ Natural Resources and Environment Committee, Regional Water Strategy Plan for the South-western Region of Victoria – First Report: Augmentation of Geelong's Water Supply to the Year 1995, Parliamentary Paper (no.D50), (Melbourne, Government Printer, 1984), 3.

⁸⁰⁵ Paterson, *A new start in Victoria*, 140-145. In addition the pilot program tested developing government strategies which included: water resource data management; establishing an accessible framework of water resource availability; development of a natural resource inventory (including environmental values); the financial and economic review of the water industry; capital inventory studies; the study of long-term incremental costs of

desire to devolve selected administrative responsibilities to facilitate improved service delivery and other administrative efficiencies,⁸⁰⁶ and increase the focus on "holistic water management" in relation to catchment and water supply coordination.

Successful "multipurpose" catchment authorities as found in overseas jurisdictions (including England, Germany and the United States) were considered in the PBRC's second report into regional and local administration, and highlighted the potential for implementing a similar model in Victoria.⁸⁰⁷ The PBRC further acknowledged the considerable limitations of existing river improvement and drainage trusts in failing to adequately recognise the importance of rivers as natural systems. As a concept, integrated catchment management had received increased recognition during the 1980s and effectively highlighted the absence of a coordinated approach to growing concerns over land and water resources degradation.⁸⁰⁸ Previously, the *Joint-Select Committee on Drainage* noted that 'there was a growing realisation of the need for catchment control to be vested in a single authority for river improvement and arterial drainage functions.^{*809} Ultimately, the Cain government (largely in response to PBRC concerns) established *The State of the Rivers Task Force* which documented 'the massive degradation of Victoria's rivers,^{*810} and pointed to catchment management as an important aspect of managing this degradation. The acceptance of conservation strategies such as integrated catchment

annual regulated flow; review of existing legislative devices; the investigation of a broad-scale water network model, and; to investigate development strategies of efficient resource use.

⁸⁰⁶ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 30.

⁸⁰⁷ Victoria, Public Bodies Review Committee, Future Structures for Water Management – Part One: Regional and Local Administration, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1981), 18.

⁸⁰⁸ Sarah Ewing, 'Catchment Management Arrangements', in Stephen Dovers and Su Wild River (Eds), *Managing Australia's Environment*, (Annandale, NSW, 2003), 394-395.

⁸⁰⁹ Victoria, Parliament, Joint-Select Committee on Drainage – Final Report, Parliamentary Paper (no.D11), (Melbourne, Government Printer, 1970), 23.

⁸¹⁰ Department of Water Resources, A Scarce Resource, 15.

management was also reflected in the positive advocating of these measures by the *National Conservation Strategy for Australia* (hereafter 'NCSA').

A prelude to the national consensus approach to sustainability adopted in the 1990s, NCSA focused on improving the awareness of environmental conservation, development and sustainability issues.⁸¹¹ In Victoria, the NREC regional management study appeared to closely replicate many aspects of the approach to natural resources and environment promoted federally by NCSA. The government also reproduced key aspects of the NCSA through the release of a draft conservation strategy (1984), followed by the State Conservation Strategy "Protecting the Environment" (1987).⁸¹² These comprised the stated goals of maintaining essential ecological processes and life support systems, ensuring the sustainable use of renewable resources, and protecting natural areas and ecosystems for the non material needs of society.⁸¹³ Economou notes that the key feature of the Cain government's State Conservation Strategy was found in its objective of 'integrating "conservation" with two other major policy themes – namely, economic development and social justice.'⁸¹⁴ This objective similarly manifested in the NREC's final report on the *South-western Region Water Management Strategy* through its articulation of catchment management as a fundamental means to 'best serve the present and future needs of the whole community in a manner that is consistent with

⁸¹¹ Stephen Dovers, 'Discrete, Consultative Policy Processes: Lessons from the National Conservation Strategy for Australia and National Strategy for Ecologically Sustainable Development', in Stephen Dovers and Su Wild River (Eds), *Managing Australia's Environment*, (Annandale, NSW, 2003), 139.

⁸¹² Leith Young, 'Government issues a guide to curb environmental damage', Age (Melbourne), June 5 1987, 8.

⁸¹³ Victoria, Rural Water Commission of Victoria 1986-87 Annual Report, Parliamentary Paper (no.60), (Melbourne, Government Printer, 1987), 15.

⁸¹⁴ Nicholas Economou, 'Greening the Garden State? Labor and Environmental Policy in Victoria', in Mark Considine and Brian Costar, *Trials in Power – Cain, Kirner and Victoria 1982-1992*, (Carlton, 1992), 102.

minimising the economic, social and environmental costs.⁸¹⁵ In this respect, the South-western water strategy emphasised the regional and holistic aspects of environmental decision making, reflecting modern catchment management initiatives.

Salinity

Dryland and irrigation salinity had largely been identified as a significant agricultural concern in the northern and western regions of the state by land and water administrators in the 1940s and 1950s.⁸¹⁶ By 1980 salinity "events" were more frequently viewed as salinity "problems" as the full effects of unimpeded land and water development became more obvious to administrators, legislators, and especially farmers (who were increasingly concerned with the continued infiltration of salt into the groundwater). Shortly after taking office the Cain government established a new *Joint-select Committee into Salinity* in July 1982. Its fundamental role was to investigate 'the social, environmental and economic effects of: (a) dry land salinity; (b) salinity associated with irrigation; and (c) increased salinity in rivers and streams as a result of factors within Victorian control.'⁸¹⁷The increase in salt load flowing into the River Murray from the Barr Creek drainage outfall (a tributary of the Lower Loddon River in the Kerang region of Victoria), was an instrumental reason for establishing the committee (Figure 6.4 below).

⁸¹⁵ Victoria, Natural Resources and Environment Committee, Report upon Water Resources Management in Victoria – South-western Region Water Management Strategy, Parliamentary Paper (no.83), (Melbourne, Government Printer, 1989), 147.

⁸¹⁶ Soil Conservation Authority, Tenth Annual Report, Parliamentary Paper (no.14), (Melbourne, Government Printer, 1959), 32. The Soil Conservation Authority (1940-1987) conducted "Salting investigations" as early as 1959, although they were relatively minor scale attempts in ascertaining techniques that could potentially reduce the damage to salinity affected land.

⁸¹⁷ Robert Fordham, VPD (Assembly), July 1 1982, 2465.

[Figure ommitted for copyright purposes. Refer to 'Final Report on Water Allocations in Northern Victoria', Victoria, Parliamentary Paper (no. D48), 1984, 21.]

Figure 6.4: Annual inputs and diversions of salt (River Murray) 1984 – In tonnes per annum (the Barr Creek (Loddon River) salt inputs from the Victorian drainage outfall can be seen in the centre). Source: Salinity Committee, Final Report on Water Allocations in Northern Victoria (1984), page 21.

The committee received a further referral in December 1982 to investigate the allocation of irrigation water in Northern Victoria in continuation of an incomplete PWC inquiry which had commenced in 1975.⁸¹⁸ The work of the committee promoted a growing view that the mitigation of the direct environmental consequences of extensive irrigation and land development necessitated system-wide reform. In many respects this represented an acknowledgement that the rural water supply governance framework was no longer sustainable under the existing institutional arrangements. Such recognition was further reinforced in the parliament: 'It is our responsibility and prerogative to take a step to try to reverse the cycle that we face at present.'⁸¹⁹

In particular, extensive irrigation development and inadequate surface drainage (among other causes) had contributed significantly to increased land and river salinity in irrigated regions. The proposed changes included: land management practices in groundwater system areas; farm based measures to improve irrigation efficiency and water conservation; and, the introduction of community based measures and capital works projects targeting irrigation drainage in Northern Victoria. In addition, the committee further highlighted the need for 'an allocation of water to dillute the wastes to an acceptable level.'⁸²⁰ It also continued to favour the development of long-term sustainability mechanisms to achieve effective salinity abatement. As the northern regions were heavily dependent on irrigation, questions of sustainability and efficiency in water allocations had become central in determining an effective "balance" for rural water supply.

⁸¹⁸ Victoria, Salinity Committee, Final Report on Water Allocations in Northern Victoria, Parliamentary Paper (no. D48), (Melbourne, Government Printer, 1984), v.

⁸¹⁹ Robert Fordham, VPD (Assembly), July 1 1982, 2466.

⁸²⁰ Victoria, Salinity Committee, Salt of the Earth: Final Report on The Causes, Effects and Control of Land and River Salinity in Victoria, Parliamentary Paper (no. D49), (Melbourne, Government Printer, 1984), xix.

Developments such as the proposals to make environmental water allocations to achieve salinity abatement requirements and the consideration of coordinated land and water management principles revealed the degree to which environmental concerns had begun to influence the reform trajectory. The process towards environmental water resources reform during the 1980s (including catchment management and the mitigation of land and water degradation) encouraged far greater political awareness of environmental conservation issues and increased the desire to achieve environmental sustainability in irrigated agriculture. As Watson suggests 'the focus of political interest in irrigation...shifted one hundred and eighty degrees with increased emphasis on...environmental consequences of unrestrained agricultural averences of unrestrained agricultural development. That the policy initiatives were also connected to wider reform processes such as regionalisation, suggested that further shifts in expanding knowledge of the interdependencies of land, water and environment, were also producing more nuanced perspectives to the consideration of how these issues would be addressed.

Economic efficiency and rural water supply governance

The government grappled with environmental degradation (including dryland and irrigation salinity) and its broader goal to integrate conservation and environmental desires with its economic development and social justice platforms. However, the most significant demands confronting irrigation reform in the 1980s related to two central issues: water pricing continually failed to reflect the actual costs of supply; and, the existing framework of water rights and allocations was preventing more productive uses of irrigation water. The large scale water resources development that defined the post war ascendency of the SRWSC had reached

⁸²¹ Alistair Watson, 'Approaches to Increasing River Flows' – Policy Forum: Water Pricing and Availability, *The Australian Economic Review*, 36(2) (2003), 215.

its zenith and the administrative focus was shifting to the management of existing supplies. In effect, the Victorian water resources economy was regarded to have entered a "mature phase". The Neilson report defined it in the following terms. 'The mature phase of the water economy is characterised by sharply rising marginal costs of water and more intensive competition for supplies which expand slowly, if at all.'⁸²² Excessive levels of subsidisation of irrigation were compounded by the rising costs of maintaining ageing physical systems and the broader need to adequately counter growing environmental costs. The most cost effective options for expanding water supply had been exhausted and the potential for future expansion was economically unfeasible.⁸²³

Bruce Davidson's study of irrigation in Australia during the 1960s was a seminal contribution in exposing the fundamental issue of economic sustainability in irrigated agriculture.

Once irrigation farms are charged the full cost of capital invested in irrigation works and production subsidies are removed, irrigation farming becomes one of the least efficient methods of using resources in Australian agriculture.⁸²⁴

The Neilson report was the first of a series of reviews directing towards an emerging economic reform process. In August 1983 the PBRC requested a further *Study of the Distribution of Costs and Benefits of Victoria's Irrigation Systems*, (hereafter 'CPS study') prepared by the Centre for Policy Studies - Monash University (an externally funded "New Right" centre);⁸²⁵ and a year later the newly formed Department of Water Resources commissioned a report from ACIL

⁸²² Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria (Neilson Associates), (Melbourne, Government Printer, October 1981), 143.

⁸²³ Mulligan and Pigram, Water Administration in Australia, 1.

⁸²⁴ Bruce Davidson, Australia Wet or Dry, 114.

⁸²⁵ Pusey, Economic Rationalism in Canberra, 227-228.

Australia into the *Transferability of Water Entitlements* (hereafter 'ACIL report'). In addition to these, the Salinity Committee report into *Water Allocations in Northern Victoria* gave careful consideration to introducing transferable water rights in the Goulburn-Murray Irrigation District. As a combined evaluation of the failures of unrestrained development and the applicability of moving toward rationalist water allocation and pricing principles, these reviews advocated for a realignment of rural water governance through underscoring the desire to achieve economic efficiency in water supply.

Pricing reform

The price of irrigation water and the high cost to government of maintaining subsidies that kept irrigation water relatively cheap had been two of the most pressing issues considered in the early stages of the PBRC process. The Neilson report had stated that 'it is clearly essential that the government move the system of charging for water in the direction of greater economic efficiency even if only through recovering more of the costs associated with providing and operating the supply system.'⁸²⁶ The previous approach to pricing was ad hoc and largely dependent on commodity prices and farming profits. In effect the price was kept low '*in the belief that low water prices would assist the irrigation industry*.' [*Emphasis Added*]⁸²⁷ Subsidisation of the cost of irrigation water on this basis had suited the developmental motif for nearly a century. However, by the early 1980s there was greatly increased competition for public works expenditure in conjunction with a considerably more restrictive fiscal climate.

⁸²⁶ Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria (Neilson Associates), (Melbourne, Government Printer, October 1981), 143.

⁸²⁷ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 39.

Alterations to the machinery of government throughout this period had exerted a profound influence over decision making, including the consideration of economic rationalist thinking and user pays principles to rural water pricing.⁸²⁸ This was one of the chief motivating factors for the appointment of Paterson, given his previous experience introducing a user pays framework for the Hunter Water Authority. Moreover, the SRWSC had indicated tacit acceptance of the need for pricing reform: 'Efficiency in resource allocation suggests that it is necessary to adopt the "user pays" principle.⁸²⁹ The excessive costs associated with any further expansion of rural water supply effectively precluded its consideration and had turned government towards considering a pricing regime that could improve efficiency in water use. The CPS study argued that 'some increase in charges for water would tend to increase efficiency of water use, although...the effect on equity of distribution of personal income and wealth would be uncertain.'830 The RWC in consultation with the government commenced a long-term strategy of small price increases (approximately 2 per cent per annum), starting from the 1984/85 financial year with the intention to gradually increase prices over a twenty year period while maintaining predictability and facilitating the adjustment for irrigators. However, the effectiveness of the measures also depended on the financial security of the RWC, and as a result the adoption of this policy coincided with writing off approximately \$400 million of accrued historical debt.831

⁸²⁸ Paterson, A new start in Victoria, 131.

⁸²⁹ Victoria, State Rivers and Water Supply Commission, Management of Irrigation Systems in Victoria – Submission to the Public Bodies Review Committee, (Melbourne, Government Printer, 1981), 50.

⁸³⁰ Centre of Policy Studies (Monash University), *Study of the Distribution of Cost and Benefits of Victoria's Irrigation Systems*, (Melbourne, 1983), 102.

⁸³¹ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 39-42.

Rural water allocations

While water pricing changes were considered to be important movements towards achieving greater efficiency in the rural water sector, they formed only one aspect of the economic reform process. The Neilson report had previously signalled the importance of treating allocation and pricing in synonymous terms:

The high level of subsidy to irrigated agriculture, built into the system of water charges, results in high increments in the capital value of property associated with the allocation of water rights and entitlements...in turn creates a strong incentive for the generation of political support for investment in new storages and new systems of water supply.⁸³²

Since the development of new systems of supply was no longer feasible, redefining the system of rural water allocations was viewed as the clearest way of moving away from what had come to be considered a self-reinforcing cycle of development. In this regard, supplanting the administrative based system of rural water allocation through altering the Water Act became the central focus of key actors engaged in the economic reform process. As the head of DWR and at the forefront of moves to revisit the legislative arrangements, Paterson prosecuted the case for comprehensive reform. The government's intended framework of water reform initiatives was fundamentally guided by a corporate approach, and they were of the view that statutory change was the only means to address the "devalued currency" of existing water rights and licences.

⁸³² Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria (Neilson Associates), (Melbourne, Government Printer, October 1981), 96-97.

Paterson stated clearly, 'function must dictate [the] corporate structure of the water portfolio. All water is property of the Crown under existing statute, but at present the vesting is fragmented.'⁸³³ The presence of a multitude of (often incompatible) statutory mechanisms and the extensive focus on administrative matters had severely restricted any practical assessment of the status of supply commitments across the system. Paterson further argued:

Any system of economic incentives that rests on a disjointed foundation of basic law is inevitably second best and is highly productive of unforeseen and unwanted consequences. We must look beneath surface inefficiencies to the basic legal foundations of water management if we are to establish a firm basis for the application of economic instruments.⁸³⁴

As water allocations made under the existing arrangements had routinely produced inefficient and inequitable outcomes (including significant environmental costs), the central objective of economic reform was to advance a "more coherent framework".⁸³⁵ This required ensuring that the system of water rights and entitlements was sufficiently robust in order to ensure continuity. Paterson strongly advocated for a capacity sharing system based on clearly defined bulk entitlements, which would enable a "hierarchical structure of rights".⁸³⁶ Under the proposed change shares of storage capacity would be allocated to water supply authorities as bulk entitlements, which in turn would be allocated to other authorities further along the hierarchy (or alternatively, for environmental allocations). In this way, authorities would be open to determine (with reference to their respective shares) the amount of water available for release.

⁸³³ Paterson, A new start in Victoria, 136.

⁸³⁴ John Paterson, 'Law and Water Rights for Improved Water Resource Management', (paper presented to the Workshop on the Contribution of Economic Incentives to the Improvement of Natural Resources Management, Paris, 22-24 April 1987), 4.

⁸³⁵ Victoria, Department of Water Resources, Water Law Review Discussion Paper – Water Resource Management Report No 1, (Melbourne, Government Printer, 1986), 18.

⁸³⁶ Paterson, Law and Water Rights, 7-8.

Allocations to end users (irrigators, stock and domestic users, and industry) could then continue through existing mechanisms.⁸³⁷ Such a system was favoured as it also provided the basis for water tradability through the introduction of transferable water entitlements.

Transferable water entitlements

Transferable water entitlements (hereafter 'TWE') as an economic mechanism for trading rights in water rest on two core principles: 'they are based on monetary values and brokered by state agencies.'⁸³⁸ Water tradability was conceived of as a state-based means of achieving improved irrigation efficiency by allowing water rights to move from one location to another in order to achieve a higher value use. Small scale water transfer schemes had been put in place in South Australia (1983) and New South Wales (1983-84),⁸³⁹ leading to their consideration as a component of Victoria's water reform process. In evaluating the potential of incorporating transferable entitlements into a realigned rural water supply framework, the CPS study concluded that 'almost all of the potential efficiency gains in agriculture could be achieved by permitting water rights to be freely transferred between farms...either on an annual basis or a permanent basis.'⁸⁴⁰ Some of the largest limitations confronting the existing system related to the difficultly that poorly defined water entitlements create in an environment of increased competition over limited resources. In addition, existing entitlements lacked separability (and this restricted opportunities to give water an effective market value) as water entitlements were bundled with land ownership.⁸⁴¹ Such considerations played an important role in shaping the

⁸³⁷ Ibid, 11-21.

⁸³⁸ Smith, Water in Australia, 293.

⁸³⁹ ACIL Australia, Transferability of Water Entitlements – Consultants Report to the Department of Water Resources Victoria, (Collingwood, 1984), 20-21.

⁸⁴⁰ Centre of Policy Studies, Cost and Benefits of Victoria's Irrigation Systems, 100.

⁸⁴¹ ACIL, Transferability of Water Entitlements, 23.

argument in favour of the usage of TWE's as a means of achieving greater economic efficiency in irrigation. This rested on introducing transferability "between commonly farmed enterprises" that occupied land in the same or corresponding administrative areas. ⁸⁴²

The ACIL report highlighted that introducing TWE's along these lines would produce significant improvements including a natural tendency towards greater efficiency in water allocations and increased flexibility between irrigators.⁸⁴³ Similarly, the Salinity Committee's report into *Water Allocations in Northern Victoria* supported a TWE policy as a means of improving irrigation efficiency, and additionally on that basis that 'the future water entitlement may be acquired...for non-agricultural uses such as salinity control, River Murray water quality and environmental uses.'⁸⁴⁴ Following extensive consultations with irrigator groups, the Cain government legislated for a temporary transfer scheme to operate over the 1987/88 irrigation season in the Goulburn-Murray, Campaspe and Macalister irrigation districts.⁸⁴⁵ The subsequent water trading period was relatively successful (more than 150 transfers were recorded in the Goulburn-Murray Irrigation District alone) turning attention towards the possibilities of implementing more permanent trading.

The major barrier to implementing TWE's in the long-term was the issue of making existing rights separable from land ownership. 'Removal of the tie between water and land can occur only if arrangements are in place to prevent uncontrolled transfers and proliferation of

⁸⁴² Victoria, Salinity Committee, Final Report on Water Allocations in Northern Victoria, Parliamentary Paper (no. D48), (Melbourne, 1984), 62.

⁸⁴³ ACIL, Transferability of Water Entitlements, 99.

⁸⁴⁴ Victoria, Salinity Committee, Final Report on Water Allocations in Northern Victoria, Parliamentary Paper (no. D48), (Melbourne, 1984), 65-66.

⁸⁴⁵ Victoria, Rural Water Commission of Victoria 1986-87 Annual Report, Parliamentary Paper (no.60), (Melbourne, Government Printer, 1987), 14.

undesirable speculative interests.⁸⁴⁶ The economic reformers of the 1980s argued that maintaining the nexus was counter to the interests of efficiency in water resource allocation. The efficient allocation of water supply required efficiency gains in other parts of the system and this relied on the disposal of a percentage of water rights (either on a permanent or temporary basis).⁸⁴⁷ Certainly, the reforms would expect irrigators to accept that rural water supply could no longer be treated synonymously with the ownership of agricultural land:

The breaking of the nexus between the land and the water entitlement is a radical step with an Australian public irrigation system. Traditionally, this nexus has been something that has been held to be sacred. However, as irrigators now see a means of further increasing their marginal returns, the maintaining of this nexus could be considered a legacy from the past.⁸⁴⁸

However, a requisite focus was given to the retention of minimum water entitlements on rural properties and the maintenance of "statutory safeguards" to preserve the interests of existing holders of water rights.⁸⁴⁹ This was revealing of a cautious approach that was appreciative of the on the ground realities of supplanting the existing system with an "efficient" alternative.

Summary

In the shadow of the PBRC reforms of rural water administration and the realignment of the primary objective of irrigated development, the reform strategy (guided by the convergence of economic, environmental and social views of water resources sustainability) proceeded to

⁸⁴⁶ Greg Claydon, *Water Allocations and Entitlements: Towards a national framework for property rights in water* – *Review of Policy Issues and Options*, Department of Primary Industries and Energy (Canberra, 1995), 19.

⁸⁴⁷ Centre of Policy Studies, Costs and Benefits of Victoria's Irrigation Systems, 102.

⁸⁴⁸ Victoria, Salinity Committee, Final Report on Water Allocations in Northern Victoria, Parliamentary Paper (no. D48), (Melbourne, 1984), 63.

⁸⁴⁹ Paterson, Law and Water Rights, 23.

transition towards objectives associated with sustainable water management. Considerable focus was directed to environmental measures and a greater appreciation of holistic water resource management, each reflecting an increased understanding of the interdependent nature of the land and water management issues. These considerations also received greater attention through the government's growing focus on introducing regional administration as it moved towards devolving the highly centralised functions of the former SRWSC. Salinity control and abatement strategies similarly increased the exposure of ecological sustainability issues stemming from unrestrained irrigated development. As economic principles came into greater focus in the shaping of the reform process (including shifts towards user pays pricing, allocation reform through capacity-sharing and the introduction of transferable water entitlements), the beginnings of a *sustainable development* strategy began to emerge. Furthermore, through each of these points of focus, the continuing process of review and reform in Victoria centred on a comprehensive realignment of the administrative and legislative aspects of rural water supply governance.

Implementation and Federal Progress

By the mid-1980s the most substantial investigations and reviews into the rural water sector were coming to a close. The PBRC had prepared its final report into irrigation and water resources management towards the close of 1984 along with the majority of the related departmental and committee investigations. From this point, rural water supply reform in Victoria moved towards a highly organised and structured realignment of its legislative and administrative arrangements. This included the devolution of former SRWSC responsibilities through regional water management and gradual moves towards implementing catchmentbased regional water arrangements. Moreover, it focused on the deconstruction of the primary objective of irrigated development that had formed the core of rural water supply governance for over a century. This started a process of realigning legislative instruments and administrative functions towards economic efficiency, environmental sustainability and broader notions of sustainable development. In addition, the Victorian reform initiatives would be further advanced with the emergence of an extensive federal water reform process throughout the 1990s. The development of federal water reforms through the new intergovernmental body of the Council of Australian Governments strengthened and supported many aspects of the Victorian reform strategy.

The final 'PBRC' report into irrigation and water resource management

The final report of the PBRC into *Irrigation and Water Resource Management* (November, 1984) combined many of the proposed reforms from the preceding four and a half years into a series of key recommendations for the future of water governance. In relation to the administration of water and the structure of the Water Act the PBRC tailored the report towards its primary review criteria: whether the existing water governance objectives were worth pursuing in contemporary society. In direct relation to this criteria the PBRC noted that in practice there was a 'clear pattern of government decisions' that had continuously favoured irrigated development and "increased production" at the expense of objectives intended to produce an economic return to the State.⁸⁵⁰ The PBRC concluded that 'a number of fundamental weaknesses have developed in the ways in which the management of the irrigation system as a whole has been carried out, as a result of many changes. *The major change is perhaps that the irrigation system itself has changed from being a pioneering system to being*

⁸⁵⁰ Victoria, Public Bodies Review Committee, Future Structures for Water Management Volume 4 – Final Report: Irrigation and Water Resource Management, Parliamentary Paper (no.D37), (Melbourne, Government Printer, 1984), 71.

a mature system.' [*Emphasis Added*]⁸⁵¹ Furthermore, the PBRC maintained that ineffective system management "for present and future conditions" as a result of continual adherence to irrigated development had resulted in circumstances 'more likely to produce inefficiencies or ineffectiveness in the system as a whole.'⁸⁵² The PBRC's final report preferred an alternative system of development that emphasised economic and environmental objectives, and simultaneously confirmed a preference for regionalisation and sustainable development principles.

The PBRC further advocated for the inclusion of "five basic organisational strategies" to guide water governance into the future: i) flexibility in allocation between competing uses; ii) commercially-based allocation and management; iii) customer orientation towards the needs of irrigators and other users; iv) future orientation and the anticipation of change in water resource use, and; v) accountability of water authorities to end users.⁸⁵³ In order to meet these strategies the PBRC's recommendations focused on themes that promoted the regionalisation of irrigation system management, and the use of market-based devices in the pursuit of efficiency-based outcomes. The government's commitment to regionalisation was largely supported through proposals to devolve irrigation system management to regional boards with effective oversight to be maintained by DWR. This strategy emphasised regionalisation as a superior method to obtain greater efficiency in water resource use. 'Local management, when combined with appropriate levels of financial autonomy, would help bring about a more commercial or business-like approach to investment decisions, and a clearer basis for

⁸⁵¹ Ibid, 79.

⁸⁵² Ibid, 80-81.

⁸⁵³ Ibid, 263-264.

determining the merits of particular projects, for setting priorities and for forward planning.⁸⁵⁴ On the second theme of incorporating market-based devices the PBRC had assessed the criteria established by the CPS, ACIL and Salinity Committee reports and advocated for significant changes to the system of water allocations, including the introduction of a system of transferable entitlements.

As a result, the PBRC recommended that the future allocation of water resources would be 'based upon an evaluation of both the social and the economic issues with the objective of maximising the benefits to the State as a whole.'⁸⁵⁵ Market principles would form a significant aspect of this process, although the PBRC also highlighted the importance of recognising social objectives. As with other parts of the report, this brought focus to the social significance of the recommendations. Specific attention was given to the notion of equity in the supply and distribution of irrigation water, and the importance of achieving an appropriate balance between social and economic objectives.⁸⁵⁶ These inclusions in the report were functionally important as they underscored the desire to protect the interests of end users as the system was progressively shifted away from compulsory water rights towards a system of transferable entitlements.

The Water Act – 1989

After such an extensive period of review and recommendation, the latter years of the 1980s saw the government and DWR turn toward the process of reform implementation in order to bring together the various proposal strands into a single coherent strategy. Constructing a

⁸⁵⁴ Ibid, 196.

⁸⁵⁵ Ibid, 282.

modern Water Act out of a maze of antiquated and fragmented legislative devices was one of the most significant steps. The *Water Act 1989* replaced fifteen existing Acts and more than 1000 pages of statute law into a single legislative device of less than 250 pages. As a product of the review period it fundamentally emphasised the 'integrated management of water resources...water supply, sewerage, regional drainage, floodplain management, waterway management and irrigation.'⁸⁵⁷ A system of modern licences and entitlements was introduced based on advanced resource management principles. This included the establishment of bulk water entitlements, environmental entitlements and the introduction of clauses authorising temporary and permanent transferable entitlements.⁸⁵⁸

The changes were introduced in a manner that protected the existing water rights of landholders but permitted them to become transferable with the approval of the relevant water authority. The Act additionally confined water trading to "prescribed irrigation districts".⁸⁵⁹ The bulk entitlement introduced capacity sharing to the rural water sector in the form that had been advocated for by Paterson. This enabled water shares to operate 'independently of other authorities holding entitlements in a shared storage system.'⁸⁶⁰ The most significant change was the inclusion of environmental entitlements and effectively giving legal standing to water for the environment. Under the change, allocations to the environment existed "on the same basis" as other water authorities, and further enabled the entitlement to be specified (allowing for the protection of downstream flows in river systems and inflow to lakes, wetlands and

⁸⁵⁷ Ronald William Walsh, VPD (Assembly), May 26 1989, 2226.

⁸⁵⁸ Water Act 1989 (Vic) ss 224-228; Langford, Forster and Malcolm, Towards a Financially Sustainable Irrigation System, 33.

⁸⁵⁹ Water Act 1989 (Vic), ss 224-228.

⁸⁶⁰ Ronald William Walsh, VPD (Assembly), May 26 1989, 2228-2229.

estuaries). In effect, these legislative changes placed a greater emphasis on principles that emphasised water resources sustainability.⁸⁶¹

Environmental water, regional and catchment management, and sustainability

Stemming from the collective work of water-related inquiries and reviews and in keeping with what eventually formed the detailed purposes of the 1989 Water Act, the RWC began to integrate economic and environmental efficiency-based measures through the development of its regional water strategy. The primary task for RWC was to move towards establishing regional offices and a *Regional Coordination Branch* in early 1986.⁸⁶² Within twelve months the majority of these settings, including the delineation of boundaries (Figure 6.5 below), choice of centres and the reduction of functions and staff in district centres had been put in place⁸⁶³ with the majority of the process completed and nine RWC Regions in operation by 1988. The initial stages of reform implementation saw only a relatively small increase in activities targeted towards environmental studies such as water quality monitoring, salinity investigations and planning, small scale environmental water releases, and the development of land and water management plans.⁸⁶⁴ Similarly, river management authorities had made some small inroads but were relatively ineffective in addressing more serious cases of environmental and river degradation (such as algal blooms).

⁸⁶¹ Water Act 1989 (Vic), s 1 (Purposes). The Act was intended to improve resource sustainability through: integrated management of all elements of the terrestrial phase of the water cycle; the management and conservation of water according to sustainable use principles; community involvement in conservation; and, protection and enhancement of the environmental qualities of streams and waterways.

⁸⁶² Victoria, Rural Water Commission of Victoria, RWC Annual Report 1985-86, (Melbourne, 1986), 26.

⁸⁶³ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 30.

⁸⁶⁴ Victoria, Rural Water Commission of Victoria, RWC Annual Report 1987/1988, Parliamentary Paper (no.37), (Melbourne, Government Printer, 1988), 55-64.

[Figure ommitted for copyright purposes. Refer to 'Rural Water Commission of Victoria 1986/1987 Annual Report', 1986, 18.]

Figure 6.5: RWC Regional Boundaries (1986) – Source: Rural Water Commission of Victoria 1986/1987 Annual Report, (Melbourne, July 1986), page 18.

However, reasonable progress was made through the introduction of salinity-abatement initiatives, including the *Community Salinity Grants* (1986) and the *Salt-Action: Joint Action* initiative (1988), both of which becoming important mitigation strategies.⁸⁶⁵ They were significant attempts to address the issue of sustainability, and were the result of extensive public consultation and consensus-based policy formation. Related projects such as Victorian *LandCare* (distinct from the later *National Landcare Program*) operated on similar principles: community-based, utilising an integrated approach to issues of degradation, and emphasising community involvement in planning and implementation.⁸⁶⁶ On the issue of integrated

⁸⁶⁵ Langford, Forster and Malcolm; *Towards a Financially Sustainable Irrigation System*, 23; Department of Water Resources, *A Scarce Resource*, 14.

⁸⁶⁶ Smith, *Water in Australia*, 247; Andrew Campbell, *Landcare: Communities Shaping the Land and the Future*, (St Leonards NSW, 1994), 26-28.

catchment management the government increased the resources available to developing catchment management strategies, including a small boost in funding (\$200,000) to municipalities in the form of *Catchment Management Grants*. In addition, financial grants to the Department of Conservation Forests and Lands were intended 'to assist with approved erosion control works on watercourses associated with LandCare projects to *promote the concept of integrated catchment management*.' [*Emphasis Added*]⁸⁶⁷ In effect, each of these initiatives highlighted the broader desire to respond to environmental sustainability issues through coordinated land and water management practices.

Economic reform and sustainability – the federal sphere

The effectiveness of Victoria's water reform experience during the 1980s placed its water authorities in an ideal position to capitalise on what emerged as a considerably advanced federal reform trajectory over the decade that followed. At the centre of the federal reform process the *Council of Australian Governments* (hereafter 'COAG') implemented changes to State-based water policy objectives through a series of intergovernmental agreements. In many respects the reform strategy it pursued echoed the Victorian experience: a commitment to sustainable development (with an emphasis on ecological sustainability), the use of micro-economic reforms, and advocating for institutional changes at the State level to encourage the use of market-based instruments in water management. To this end, it has been suggested that many aspects of the Victorian reform experience were "influential" to the development of the COAG reform agenda.⁸⁶⁸

⁸⁶⁷ Victoria, Rural Water Commission of Victoria, RWC Annual Report 1987/1988, Parliamentary Paper (no.37), (Melbourne, Government Printer, 1988), 66.

⁸⁶⁸ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 27.

Emerging from the Hawke/Keating government's Special Premiers Conferences (which were intended to build a stronger system of intergovernmental relations),⁸⁶⁹ COAG represented an important shift towards a collaborative federal-interstate policy exchange in Australia. In effect, its 'two most important features have been the regular interactions of a group of central agency officials and their development of a strengthened intergovernmental focus within each government.⁸⁷⁰ COAG's role as an intergovernmental body has generally been to advance cooperation between the federal and state governments in the national interest, the pursuit of reform agendas targeted at integrating the national economy and advancing a single national market, and the structural reform of government, administration and the relationships among governments.⁸⁷¹ Each stage of the water reform process throughout the 1990s was reflected in agreements reached by COAG, including the National Strategy for Ecologically Sustainable Development (1992), the Strategic Water Reform Framework (1994), and the implementation of National Competition Policy reforms (1995). Furthermore, as Pigram has noted, considerable payments from the federal government to the states were contingent to reform implementation, and 'neither the COAG directives nor the competition policy reforms were negotiable if the respective state authority wished to retain its share of the contingency payments.'872

COAG's 1992 agreement on the *National Strategy for Ecologically Sustainable Development* (hereafter 'NSESD') emphasised two essential goals for Australian water resource

⁸⁶⁹ Victoria, Parliament, Federal-State Relations Committee, Report on Australian Federalism: The Role of the States, (Melbourne, 1998), 55.

⁸⁷⁰ Martin Painter, *The Council of Australian Governments and Intergovernmental Cooperation – Competitive or Collaborative Federalism*?, (Canberra, 1995), 8.

⁸⁷¹ Victoria, Parliament, Federal-State Relations Committee, Report on Australian Federalism: The Role of the States, (Melbourne, 1998), 59.

⁸⁷² Pigram, Australia's Water Resources, 65.

management: the establishment of an integrated approach to the development and management of water resources; and, the implementation of a more efficient mix of water resource management mechanisms.⁸⁷³ The NSESD agreement developed in response to the 1987 *Our Common Future: Report of the World Commission on Environment and Development*.⁸⁷⁴ It established the central components of the nation's sustainable development agenda, which focused on the stated goal of 'development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.²⁸⁷⁵ In terms of water resources reform, NSESD became the first step in clarifying the central components of future intergovernmental exchanges over water resources policy issues (integrated catchment management, economic efficiency, and ecological sustainability).

NSESD also reflected an emerging international consensus regarding the necessity for "sustainable environmental management".⁸⁷⁶ In terms of water resources the prevailing view promoted integrated catchment management as the means to achieve sustainability in irrigation. This position was strongly supported by the World Meteorological Organisation's *Dublin Statement on Water and Sustainable Development* which encouraged a greater understanding of water as an environmental asset, participatory management of water resources at all levels (users, planners, policy-makers) and, the recognition of water as an "economic

⁸⁷³ Smith, Water in Australia, 270.

⁸⁷⁴ Dovers, *Discrete, Consultative Policy Processes*, 141. The 1987 World Commission report emphasised seven strategic imperatives: reviving growth, changing the quality of growth, meeting essential human needs, ensuring a sustainable level of population, conserving and enhancing the resource base, reorienting technology and managing risk, and, merging environment and economics in decision making.

⁸⁷⁵ 'National Strategy for Ecological Sustainable Development – Introduction.' Australian Government (Department of Environment), Retrieved: <u>http://www.environment.gov.au/about-us/esd/publications/ national-esd-strategy-part1#WIESD</u>, (December 7 2015).

⁸⁷⁶ Connell, Water Politics in the Murray, 113.

good".⁸⁷⁷ In conjunction with these guiding principles, it argued 'the most appropriate geographical entity for the planning and management of water resources is the river basin.⁸⁷⁸ The 1994 COAG *Strategic Water Reform Framework* (hereafter 'Water Framework') embraced each of these principles and focused on an appropriate 'mixture of micro-economic reform and sustainable development ideals.⁸⁷⁹

COAG's water framework

The focus on sustainability within the water framework concentrated on alleviating the environmental impacts of agricultural development, including land and waterway degradation, declining water quality and increasing salinity. Proposed policy responses to these issues echoed the NSESD and Victorian reforms (integrated catchment management, improved water allocation through advanced legal and policy frameworks which incorporate environmental water values, and increased focus on sustainable water resource use within the broader hydrological cycle).⁸⁸⁰ This was reaffirmed by the water framework which stated that 'future investment be undertaken only after appraisal indicates it is economically viable and ecologically sustainable.⁸⁸¹ The reform strategy also closely replicated the Victorian framework through emphasising the reform of water institutions and the realignment of pricing structures on the basis of "consumption-based pricing" to achieve costs recovery over the long-

⁸⁷⁷ 'The Dublin Statement on Water and Sustainable Development.' World Meteorological Organisation, Retrieved: <u>http://www.wmo.int/pages/prog/hwrp/documents/english/icwedece.html</u>, (December 7 2015).

⁸⁷⁸ Ibid.

⁸⁷⁹ Kathryn Parker and Edward Oczkowski, 'Water Reform and Co-operation', *Journal of Economic and Social Policy*, Vol 8(1) (2003), 11.

⁸⁸⁰ 'National Strategy for Ecological Sustainable Development – Part 3 Chapter 18: Water Resource Management.' Australian Government (Department of Environment), Retrieved: <u>http://www.environment.gov.au/node/13044</u>, (December 7 2015).

⁸⁸¹ Council of Australian Governments, *Communiqué for the meeting of 25 February 1994*, Hobart: Council of Australian Governments.

term and the removal of cross-subsidies. However, the more prominent reform proposals centred on the clarification of water property rights and moving towards a full system of water trading arrangements within and between state jurisdictions.

The essence of water as a property right is reflected by its exclusivity in appropriation and disposal (whether traded, gifted, bequeathed, leased, subdivided or amalgamated), and more broadly as it is mortgageable and enforceable at law.⁸⁸² COAG's shift towards encouraging water property rights and trading was consistent with the wider view (as advocated in Victoria)⁸⁸³ that reallocation of water entitlements to individual users would improve efficiency and gradually increase the capability of authorities to assess the availability of water resources in a catchment.⁸⁸⁴ As such, the water framework utilised agreement from the states to initiate the implementation of 'comprehensive systems of water allocations or entitlements backed by separation of water property rights from land title and clear specification of entitlements in terms of ownership, volume, reliability, transferability and, if appropriate, quality.'⁸⁸⁵ The associated objective of integrated catchment management would additionally be aided by water trading and advanced allocation practices due to the potential for distribution according to capacity sharing arrangements involving both consumptive and environmental shares. The measures were considered as providing greater flexibility in terms of temporary transfers of

⁸⁸² Parker and Oczkowski, Water Reform and Co-operation, 6.

⁸⁸³ At the time of the Strategic Water Framework (COAG) agreement Victoria had further improved upon its transferability provisions by extending permanent transfers beyond prescribed irrigation districts through the inclusion of "any land" and "any other land" provisions. *Water (Further Amendment) Act 1994* (Vic), s 7.

⁸⁸⁴ Smith, *Water in Australia*, 298; M. D. Young and J. C. McColl, 'Robust Reform: The Case for a New Water Entitlement System in Australia', *The Australian Economic Review* 36 (2), 2003, 229-231.

⁸⁸⁵ Council of Australian Governments, *Communiqué for the meeting of 25 February 1994*, Hobart: Council of Australian Governments.

water in times of abundant rainfall, and a greater role for environmental initiatives through the economic principle of reinvestment of return.⁸⁸⁶

In this regard, the water framework emphasised fundamental approaches to reform (economic sustainability through market efficiency and environmental sustainability through the realignment of water institutions). However, consistent with the Victorian process, market-based devices clearly occupied the central space. The connection of the water reform framework to the subsequent COAG *National Competition Policy* agreement (1995)⁸⁸⁷ confirmed the desirability of market-based mechanisms (the foremost of these being the corporatisation of state and territory water authorities).⁸⁸⁸ Here again, Victoria found itself ahead of the COAG process, having corporatised the RWC and redesignated it as a statutory authority while simultaneously reducing the regional management boards down from nine to five. Each of these measures had followed the recommendations of the *Future Management Review* (1992),⁸⁸⁹ while a further restructure in mid-1994 dispensed with the Rural Water Corporation altogether and granted the five regional centres independent authority status.

In effect, the advancement of water reform through COAG complemented the already well developed process in Victoria, and significant inroads made during the 1980s (such as water pricing and rural water allocations) were capitalised upon as a result of the subsequent intergovernmental agreements. Victoria also further advanced its well-developed processes in

⁸⁸⁶ Smith, Water in Australia, 298.

⁸⁸⁷ Council of Australian Governments, *Communiqué for the meeting of 11 April 1995*, Canberra: Council of Australian Governments.

⁸⁸⁸ Pigram, Australia's Water Resources, 65; Smith, Water in Australia, 287-88.

⁸⁸⁹ Gutteridge, Haskins and Davey, ACIL Australia, Ernst and Young, Future Management Review: Rural Water Commission – Final Report to the Steering Committee, (Melbourne, 1992), i.

areas such as regionalisation, becoming one of the earliest states to implement a jurisdictionwide integrated catchment management framework. The passage of the *Catchment and Land Protection Act* (1994) provided the means for the development of ten catchment regions (Figure 6.6 below), and each of these established regional catchment strategies on the basis of extensive planning that had developed from community consultative programs, including the LandCare, salinity and water quality schemes.⁸⁹⁰ Such changes were notable aspects of continued Victorian water advances during the expansion of the federal water reform process throughout the 1990s, and were reflective of the realignment of rural water institutions that had taken place across Victoria.

[Figure ommitted for copyright purposes. Refer to <u>http://delwp.vic.gov.au/water/ governing-water-resources/catchment-management-authorities.]</u>

Figure 6.6: Victorian Catchment Management Regions – Source: <u>http://delwp.vic.gov.au/water/governing-water-resources/catchment-management-authorities</u>, Retrieved: (December 10 2016).

⁸⁹⁰ Ewing, Catchment Management Arrangements, 395.

Summary

The structural and organisational reforms in Victoria ultimately forced a substantial realignment of the legislative and administrative aspects of rural water governance. Measures that embraced economic and environmental notions of sustainability, further assisted in repositioning the rural water sector towards incorporating the objectives of economic efficiency and sustainable development. In particular, the shift to allocations based on capacity-sharing (bulk entitlements and environmental entitlements), incorporating water trading into the body of water legislation, and the gradual development of regional water governance and integrated catchment management saw a considerable transformation in Victoria. The presence of the COAG-initiated intergovernmental reform trajectory of the 1990s assisted in bolstering the Victorian reform strategy due to the significant advances that had already been made. As Keating and Wanna suggest, 'the shift from coercive to collaborative federalism meant that the Commonwealth had to accept the states' involvement in the determination of priorities and policy.'891 Indeed, many of the Victorian achievements guided the new federalintergovernmental arrangements adopted by COAG: sustainable development (and ecological sustainability goals), micro-economic measures, and supporting institutional reforms in the states on the basis of increasing the adoption of market-based reform instruments.

⁸⁹¹ Michael Keating & John Wanna, 'Remaking Federalism?', in Michael Keating, John Wanna & Patrick Weller, *Institutions on the Edge? Capacity for Governance*, (St Leonards, NSW, 2000), 138.

Paradigm Shift, Reform and Realignment

Essentially, the concept of comprehensive institutional reform is an antithetical one due to the continual need for institutions to achieve stability through the operation of rules, routines, practices and procedures that strive towards a structured existence. However, the perpetual motivation to produce stability also insulates political institutions against stimuli (both internal and external) that would naturally focus on encouraging broad reform. Effective reform of a sufficiently larger scale is considerably more reliant on the occurrence of unique situations of crisis, and it is more likely to succeed where reforms are comprehensively structured and sustained. The following discussion reflects on the relative achievements of the process of reforming rural water supply governance in Victoria as a deliberate and comprehensive reform approach engineered into the mainstream political agenda.⁸⁹² In particular, consideration is given to the way in which these reforms began to recalibrate rural water supply governance towards the alternate objectives of economic efficiency and sustainable development. Furthermore, the initiation of reforms are examined in relation to the concept of crisis as "sporadic and disruptive events" initiating change,⁸⁹³ and further notions of system wide change occurring within an overarching process of "paradigm shift". The review and reform period in Victoria is therefore examined in the context of sustained efforts to reform rural water governance in response to a series of interrelated crises (drought, salinity and environmental degradation, the limits of supply expansion and the increasing costs of rural water supply).

⁸⁹² March and Olsen, *Rediscovering Institutions*, 99; March and Olsen suggest that 'experience with institutional reform suggests that successful comprehensive reform may depend on expanding the time horizons of reform efforts and buffering them from short-term fluctuations in attention.'

⁸⁹³ Krasner, Approaches to the State, 234.
Paradigm shift

The reforms to rural water supply governance emerged within the context of a broader systemwide shift that was a result of a base alteration to the nature of policy dialogue throughout the 1980s and beyond. Peter Hall has outlined such "paradigm shifts" in political science as a third order process of change that exhibit a fundamental break from the "overarching terms of policy discourse", in contrast with first and second orders (which negotiate policy change according to the terms of the existing paradigm).⁸⁹⁴ Hall's ideas reinterpreted Kuhn's original notion of scientific paradigms through the study of the move from Keynesian to neo liberal economic policy settings in western industrialised societies.⁸⁹⁵ He highlights the state centricity of shifts in "technically complex" areas of policy-making (such as macroeconomic policy settings) are heavily reliant on powerful political influences which typically form within the apparatus of government. In the Australian context, Painter has contended that the political rationality essential to paradigm shift in Australia 'was fundamentally a rationality of governance.'⁸⁹⁶ This is supported by Whitwell's assessment of changing attitudes to public sector inefficiencies in the federal treasury and its pursuit to increase public investment efficiency through the adoption of market-based techniques.⁸⁹⁷ Essentially, the contributions of policy experts (or in this instance, federal treasury officials) drove the initial stages of change, ahead of political actors

⁸⁹⁴ Hall, *Policy Paradigms*, 279-280; see also; Peter A Hall, *The Political Power of Economic Ideas: Keynesianism across Nations*, (Princeton, 1989).

⁸⁹⁵ Ibid, 279. Hall's study focused on the shift from Keynesian to monetarist policy settings in Britain between 1970 and 1989, although Hall's reasoning is equally applicable to the context of similar changes in Australia. See also: Collette Sophie Vogeler, 'Paradigm Change and Cycles of Policy Change – The Case of Economic Policymaking in Brazil', (paper presented to the 1st International Conference on Public Policy, Grenoble, June 26-28 2013), 2, Retrieved: <u>http://www.icpublicpolicy.org/IMG/pdf/panel_26_s2_vogeler.pdf</u>, (June 28 2016).

⁸⁹⁶ Martin Painter, 'Economic Policy, Market Liberalisation and the End of Australian Politics', *Australian Journal of Political Science*, Vol 31(3) (1996), 288.

⁸⁹⁷ Greg Whitwell, 'The Triumph of Economic Rationalism: The Treasury and the Market Economy', *Australian Journal of Public Administration*, Vol 49(2) (1990), 124-140.

who quickly took on a dominant role before the process extended "beyond the state" to involving the media, other political interests, and political parties.⁸⁹⁸

Hall suggests that a key feature in the movement between paradigms is the manifestation of anomalies (or shocks) that tend to emerge as episodes of policy failure under the existing paradigm.⁸⁹⁹ According to Vogeler, these anomalies are either internal or external to the system, seldom in occurrence, and are an essential feature of the radical shifts that Hall refers to.⁹⁰⁰ In the Victorian situation, three anomalies can be viewed as contributing to the formation of rationalist approaches to water management: the economic limits of supply expansion; the increasing financial burden of existing supply systems; and, the rapidly expanding environmental costs. In addition, the overarching threat of drought provided a higher order crisis that held the potential to further destabilise the sector. Each of these pressures were cast as contributory elements within a *mature water economy* and effectively presented as incompatible with the terms of the existing paradigm.

According to Hall, existing policy paradigms represent 'a framework of ideas and standards that specifies not only the goals of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing.⁹⁰¹ When the framework is confronted with policy failure across multiple inputs, this can give rise to paradigm shift. The period of rural water reform and the categories of change that this period

⁸⁹⁸ Pusey, *Economic Rationalism in Canberra*, Chapter 5; Pusey's description of this phenomenon in Canberra closely replicates the position of Hall.

⁸⁹⁹ Hall, Policy Paradigms, 280-281.

⁹⁰⁰ Collette Sophie Vogeler, 'Paradigm Change and Cycles of Policy Change – The Case of Economic Policymaking in Brazil', (paper presented to the 1st International Conference on Public Policy, Grenoble, June 26-28 2013), 3, Retrieved: <u>http://www.icpublicpolicy.org/IMG/pdf/panel 26 s2 vogeler.pdf</u>, (June 28 2016).

⁹⁰¹ Hall, Policy Paradigms, 279.

has come to represent are broadly indicative of such a shift: altered policy settings (from developmental and interventionist to market-based efficiency and economic/social/ecological sustainability); radical shifts in terms of the application of policy instruments (introduction of user-pays pricing, capacity sharing allocation principles, and water trading), and; drastic changes in the hierarchy of objectives (from development, settlement and agricultural growth centred objectives to cost effective, efficient and sustainable development objectives).⁹⁰² While these features support the notion of paradigm shift encompassing a growing acceptance of neo liberal policy measures in Victoria, the processes examined in this chapter further incorporate interrelated concepts of coordinated, crisis inspired institutional reform.

From 'crisis' to comprehensive reform

The significance of paradigm shift as an overriding theme of higher order systemic change also holds distinct implications over decision making in lower order institutions. Philosophical shifts concerning the nature of problems that policymakers confront, the design of policy objectives in the face of these shifts, and the resulting use of alternative instruments all present deep-seated challenges to prevailing institutional settings. In the case of rural water supply governance in Victoria, the extent to which existing institutions had become embedded within a severely fragmented structure was utilised as an example of a failure of accountability. March and Olsen argue that this approach has been replicated in many western democracies, where the focus is placed on failing institutional structures, objectives and organisation.⁹⁰³ In this regard, 'Crisis situations tend to become the watersheds in a state's institutional development.

⁹⁰² Ibid, 283-284.

⁹⁰³ March and Olsen, *Rediscovering Institutions*, 98.

Actions taken to meet the challenge often lead to the establishment of new institutional forms, powers, and precedents.⁹⁰⁴

The crisis is therefore a determinative feature in the reorganisation of institutions and occupies a central role in forcing institutional adaptation. Collier and Collier also highlight that the emergence of these crises/cleavages perform an important function as the beginnings of critical junctures in institutional development.⁹⁰⁵ Using the example of this chapter, the formation of the PBRC is the response to a series of crises identified in the rural water sector throughout the 1970s and early 1980s. The complete failure of the Hamer government's Water Resources Council shone a light on the relative power and influence of the SRWSC and exacerbated political tensions surrounding a conception of "centralised statutory authorities" as unaccountable bodies.⁹⁰⁶ Similarly, a decline in faith in the existing structures followed the realisation that rural water sector objectives were increasingly inconsistent with prevailing economic and social ideals. Growing inequality and conflict between competing views of policy goals and objectives (particularly in regard to economic and environmental ideals), also generated a significant crisis-point.⁹⁰⁷

⁹⁰⁴ Stephen Skowronek, *Building a New American State: The Expansion of National Administrative Capacities*, (New York, 1982), 10.

⁹⁰⁵ Ruth Collier and David Collier, *Shaping the Political Arena: Critical Junctures, the Labor Movement, and Regime Dynamics in Latin America*, (Princeton, 1991), 30; see also; Peter Hall and Rosemary Taylor, 'Political Science and the Three New Institutionalisms', *Political Studies*, XLIV (1996), 941-942; and; Kathleen Thelen, 'Historical Institutionalism in Comparative Politics', *Annual Review of Political Science*, Vol 2 (1999), 388-392.

⁹⁰⁶ Langford, Forster and Malcolm, *Towards a Financially Sustainable Irrigation System*, 26.

⁹⁰⁷ Johan P Olsen, 'Change and Continuity: An Institutional Approach to Institutions of Democratic Government', *European Political Science Review*, Vol 1(1) (2009), 15; March and Olsen, *Rediscovering Institutions*, 95-111; Max Weber, [G Roth and C Wittich (eds.)], *Economy and Society*, (Berkeley, 1978).

Realignment

The formation of the Public Bodies Review Committee marked the first stage of a structured approach targeting the reform of rural water management in Victoria, and signalled the commencement of a sustained deployment of resources to challenge the prevalence of existing institutional settings. Regime change through the election of the Cain Labor government in 1982 also focused political activity towards reform oriented goals. March and Olsen contend: 'When institutional reform is made a policy area of its own in these ways, reform issues are seen as continuous rather than episodic.'⁹⁰⁸ Multiple layers of inquiry and review (including several parliamentary committees, departmental reviews, and private consultants' reports) gradually became interconnected with significantly broader external pressures. Actors who had embraced alternate notions of public sector reform shaped the early stages of moving towards managerialist and economic rationalist approaches. The inclusion of consultants was equally instrumental in encouraging private sector alternatives to policy problems. Each of these aspects assisted in producing a comprehensive and structured reform process, the effect of which was the introduction of policy mechanisms that focused on economic efficiency in rural water supply.

The reform period brought about a substantial realignment of Victorian rural water supply governance. Previously rigid institutional structures and the relative power asymmetries that had developed in conjunction with them were significantly eroded, creating the prospect for alternate policy approaches and the production of new institutional forms. This provided crucial opportunities for competing ideas to influence emerging institutional settings through filling the political space.⁹⁰⁹ The restructure and reorganisation of rural water administrative bodies

⁹⁰⁸ March and Olsen, *Rediscovering Institutions*, 99.

⁹⁰⁹ Thelen, Institutionalism in comparative politics, 390.

and their functions enabled the development of focus driven management ideas and new managerial approaches to organisation and planning. Furthermore, there was greater recognition of the significant pressures on rural water supply including increased demands from competing uses on allocation and mounting concerns regarding the recovery of water supply costs. In effect, the realignment of administrative structures had generated the circumstances for the development of alternative policy approaches (economic efficiency in supply, integrated management of land and water, and the implementation of sustainable development principles).⁹¹⁰ These approaches were pursued at state government and intergovernmental levels (through COAG), resulting in a trajectory of semi-continuous reform.

The effect of institutional realignment was extended by the introduction of legislative reforms. Specifically, the incorporation of bulk entitlements, environmental entitlements and water trading into the body of water legislation reflected the desire to bring about a progressive legislative shift. However, the reforms did not operate as a reversal of the existing legislative arrangements, rather, they embodied a process of "selective filtration" into pre-existing "legal structures".⁹¹¹ The legislative changes rather than acting as broad attempts at restructure, functioned as a series of structural corrections targeted to realign the legislation towards the alternate policy objectives. This initiated a fundamental reinterpretation of legal structures 'in the light of external needs and demands.'⁹¹² Essentially, legislative reform generated the means for a more effective transition from objectives focused on irrigated development. The

⁹¹⁰ Dingle Smith, 'Water Resources Management', in Stephen Dovers and Su Wild River (Eds), *Managing Australia's Environment*, (Annandale, NSW, 2003), 63-64.

⁹¹¹ Gunther Teubner, 'Substantive and Reflexive Elements in Modern Law', *Law and Society Review*, Vol 17(2) (1983), 249.

⁹¹² Ibid.

introduction of water trading made the largest impact as it disrupted a core feature of the existing legislative framework through targeting the nexus between the right to water and the ownership of land. The continuation of this process through the series of intergovernmental agreements at COAG indicated that the emphasis on water trading (and by extension, water property rights) would remain as the central component of future water reforms.

Summary

The restructure, reform and reorganisation of the institutional structure of rural water supply governance in Victoria was the product of a highly organised process of "realignment". Rather than occurring as a direct result of exogenous "shock", the initial changes were brought about through a structured pattern of responses to higher order change in the form of paradigm shift and a series of interrelated crises. In effect, the structure and sequence of the reform process was equally determinative of the overall effectiveness of the reform strategy.

Conclusion

In the face of a rigid institutional structure the commencement of the reform of rural water supply in Victoria proceeded through a comprehensive strategy of restructure and reorganisation that fundamentally transformed the objectives of rural water supply governance. Structural and organisational reforms started a transition from the previous developmental focused approach to one inclusive of the interrelated aspects of water resources management. Once the process commenced it created the space for a broader reform focus on economic efficiency and sustainable development built on alternative approaches to rural water supply governance (user pays pricing, allocation reform, the introduction of transferable water entitlements, regionalisation and integrated catchment management). The context within which the reforms were achieved (paradigm shift and interrelated "crises") demonstrates that the rigidity of the existing institutional structure required extremely high levels of stimulus in order to bring about the realignment. The commencement of the reform process required structure and sequence, and these aspects were equally determinative of its overall effectiveness as a reform strategy.

Chapter Seven: Water Politics and Rural Water Governance in Victoria

This thesis has explored rural water supply governance in Victoria, its legislative and administrative beginnings, and the evolution of an institutional structure that profoundly impacted on the policy environment. Chapter one introduced the key themes of the thesis against a background of existing concepts and approaches. Chapter two explored the emergence of Alfred Deakin's innovative legislative design and its emphasis on notions of social liberalism and long-term national economic development. Chapter three examined the legislative amendments immediately after federation and how Deakin, George Swinburne and Stuart Murray constructed robust institutional structure through utilising Deakin's legislative template, moreover, that these efforts further informed the federal water debate. Chapter four examined the case study of the McClelland Commission, its recommendations for legislative reform and the Dunstan government's decision to reassert the objective of irrigated development at the expense of economic return. Chapter five considered two examples of the MMBW attempting to secure an inter-basin transfer of water across the northern dividing range, the responses of key political actors, and how the notion of a rural/urban water divide limited the decision making environment. Chapter six considered the sustained period of rural water supply reform that realigned the institutionally robust governance arrangements through a process of restructure and reorganisation, and how this process later attached to a broader federal reform agenda. Each of these chapters have additionally expanded the historical context of fundamental rural water supply governance issues and the pressures that they exerted on the policy process.

The thesis demonstrates that rural water supply governance in Victoria from its commencement in the 1880s through to the transition into an era of reform in the 1980s was continually impacted by the dominant influence of *irrigated development*. As the primary objective of the overall institutional structure, it occupied the centre of a complex mix of legislative devices and governance arrangements that were intended to advance the growth and expansion of irrigated agriculture in the pursuit of distinct social and economic ideals. In effect, rural water supply governance from the 1880s to the beginning of the reform era has foremost been a reflection of an overall policy trajectory that originated with the instigation of this primary objective of irrigated development. The analysis of this trajectory has revealed two prevailing features of rural water supply governance that have continually recurred throughout this thesis.

First, the policy trajectory is characterised by governance issues that have fundamentally shaped its development: the prominent structure of water rights vested in the State and the provision for the allocation of water rights to irrigators; continued revisions of the apportionment of water supply costs between irrigators and the State; the influence of conflict over water resources allocation between rural and urban water sectors; and, the emergence of sustainability issues that directly impacted water resources governance, reflecting the physical and economic limits of rural water supply expansion. Second, the policy trajectory reflects the influence of a constrained institutional environment subjected to self-reinforcing processes of institutional development. A robust institutional structure contributed to an extended period of institutional and policy stability that further exhibited tendencies characteristic of path dependent policy development. The eventual reform of this structure provided a further demonstration of its rigidity and centrality to the policy environment.

The Institutional Structure

The institutional structure that comprised rural water supply governance was devised to encourage future endeavours in a particular institutional space (irrigated development). Moreover, it employed fundamental objectives that reflected the beliefs, values and ideals of those who engaged in its formation. This supports the notion that political institutions are designed with the intention of binding the activities of future political actors. 'Whatever today's authorities create...stands to be subverted or perhaps completely destroyed – quite legally and without any compensation whatever – by tomorrow's authorities.'⁹¹³ Through devising institutions political actors place restrictions on their own freedom with the intention of realising a more significant objective.⁹¹⁴ In effect, institutional structures are devised to ensure a higher degree of certainty in terms of future modes of political activity. This thesis illustrates that the formation of clauses that asserted the State's primary right to flowing water occupied the foundation of the institutional structure of rural water supply governance.

The central platform of the "crown rights" provisions in rural water supply legislation from the point of Deakin's *Irrigation Act* (1886) onwards, embodied the foundation of the overall structure that was envisaged. The principal measures were the product of an early legislative focus on overcoming the unsuitability of English riparian law to Australian landscapes and its harsh climatic extremes, and simultaneously advanced an ideal image of irrigated agriculture capable of simultaneously achieving social and economic aspirations. As Deakin saw it, the social and economic benefits of irrigation would prove fundamental in encouraging a "national" system of agricultural development. Deakin further portrayed the English system of

⁹¹³ Terry M Moe, 'Political Institutions: The Neglected Side of the Story', *Journal of Law, Economics, & Organization*, Vol 6 (1990) Special Issue: [Papers from the Organization of Political Institutions Conference, April 1990], 227.

⁹¹⁴ Pierson, Politics in Time, 145.

riparian law as fundamentally unsuitable, arguing that it "absolutely debarred"⁹¹⁵ the pursuit of irrigated agriculture in the colonies. Statements such as this were also indicative of the impact that Deakin's Western American tour had in shaping his views. In fact, from that point forward, Deakin's attempts to assert crown rights became significantly more forceful, and comprehensive combined efforts (from Deakin, Murray and Swinburne) were made to perfect the crown rights formula until the successful passage of Swinburne's *Water Act* 1905 (and the extension of crown rights to the beds and banks of watercourses). These efforts are indicative of their belief in the centrality of the State's right to water as the fundamental legal device to achieving irrigated development, they each made substantial contributions to the federal water debate. In pursuit of an inter-state agreement over the waters of the River Murray they envisaged and encouraged the movement towards a federal water framework.

Crown rights provided the essential legal basis for irrigated development to proceed, and the comprehensive framework of legislation for the supply of irrigation water effectively rested on this relatively small cluster of legal provisions. The assertion of crown rights was not only important to the legislation, but as an instrument that formed the backbone of the institutional structure. In this regard, the functional purpose of crown rights was to provide the means of extending water rights to agricultural land that was separated from natural sources of supply. First in the provision for "easement of aqueduct", then later in the extension of licensing provisions and the conferral of rights by "administrative grant", and finally in the allocation of water to landholders by "assignment". Each of these measures had the effect of conferring relatively strong water rights to irrigators despite the obvious consequence that they would be extremely difficult to remove.

⁹¹⁵ Alfred Deakin, VPD (Assembly), June 24 1886, 440-441.

In response to the early failures associated with the irrigation trusts system, Swinburne's *Water Act* (1905) further introduced a powerful, centralised agency in the form of the State Rivers and Water Supply Commission to more effectively manage irrigated development. This was coupled with an intention to avoid previous financial disasters and balance the extensive economic costs of the system through the inclusion of a secondary "economic return" objective. Swinburne intended that the measure would control development to the extent that the eventual system would operate "on a sound economic basis". These incremental shifts enabled control over what were considered necessary adaptations to the institutional structure. In effect, they represented further attempts to devise additional rules, alter existing frameworks and reassert a level of control over the perceived uncontrollable aspects of the institution.

These legislative measures collectively contributed to the formation of an especially robust institutional structure which above all else, intended to advance the primary objective of irrigated development. These ambitious goals required legislative innovation and a collective determination to ensure that the initiatives succeeded. Deakin's contributions were superior, and in many respects they were indicative of his entrepreneurial influence as he sought to create new institutional forms that would encourage irrigated agriculture on a scale of which his contemporaries had only imagined. However, the formation of the overall institutional structure further required the broader commitment of key governments and political actors (particularly Swinburne and Murray). Through the influence of the prevailing ideals of social and economic advancement that drove their endeavours, their pursuit of irrigated development produced a lasting influence over the evolution of the governance arrangements and the policy trajectory that followed. The policy case studies employed by this thesis demonstrate the extent of this influence.

The Case Studies

The case studies that form the core ideas of this thesis demonstrate that the robust institutional structure that Deakin, Murray and Swinburne created in advancing their collective vision of irrigated agriculture in Victoria, later developed into a constrained policy environment. This contributed to an extended period of institutional and policy stability that produced a number of unintended consequences for later decision makers. In overall terms, the longest period of rural water supply governance in Victoria exhibited tendencies that are characteristic of path dependent policy development. This is supported by the policy case studies that have formed the central argument of this thesis.

The McClelland Commission 1936

This case study indicates that a relentless focus on irrigated development was instrumental in shaping the preferences of political actors during the period of the 1930s depression. Continued expansion of irrigation storage and supply while maintaining extremely low rates and charges encouraged a strong sense among irrigators that their water rights were a guarantee of water supply. The McClelland Commission confirmed this, and further noted that irrigators believed the State was "morally" obliged to supply irrigation water on the basis of an "assurance of security of supply".⁹¹⁶ Water for irrigators. However, the McClelland Commission also found that existing "legal" water rights had "served their purpose", indicating that the framework of compulsory rights (in combination with the volumetric standard) had produced excessive development.

⁹¹⁶ Victoria, Parliament, Royal Commission into the Expediency of Amending the Water Act 1928 and Other Matters, (Fourth Report), Parliamentary Papers (no. 2), (Melbourne, Government Printer, 1937), 23.

The McClelland Commission's criticisms of irrigated development further highlighted the obvious economic impacts of the continued drive for expansion, and the massive direct costs that were carried by the general taxpayer. Successive governments kept rates and charges substantially below the costs of supply and this resulted in a "state-sponsored" system of irrigation that was incapable of paying for itself. The extent to which the competing objectives of irrigated development and economic return were already mutually inconsistent, was further exacerbated by these artificially low rates and charges until the point was reached when the objective of economic return was finally discarded. The consistent defence of the costs of supply was based in rhetorical arguments that the excessive costs of irrigation were unavoidable but necessary by virtue of the "indirect benefits" that returned to the state as a consequence of development. These were essentially immeasurable and this was confirmed by Albert Dunstan's contention that 'these indirect benefits could not, of course, be included in the budget.⁹¹⁷ The rhetoric of indirect benefits became the common riposte in defence of the mounting costs of irrigated development. In this regard, claims of indirect benefits broadly represented an almost universal assumption that irrigated development was fundamentally "good" for society and the economy.

The McClelland Commission case study demonstrates that the "accumulation of decisions" investing in irrigated development while suppressing its costs, influenced the emergence of policy preferences that maintained and supported irrigated development through the use of rhetoric that emphasised its "indirect benefits". This indicated the influence of the institutional environment of rural water supply governance over the preferences of its actors. Through the operation of this self-reinforcing mechanism, earlier policy decisions in the institution's history continued to exert a strong influence over the decision making environment resulting in policy

⁹¹⁷ Albert Dunstan, VPD (Assembly), August 3 1938, 628.

feedback. This caused a gradual process of "reinterpretation" of the governance objectives, whereby the Dunstan government proceeded to repudiate the secondary objective of economic return in favour of placing a substantially greater emphasis on the primary objective of irrigated development.

The Urban/Rural Water Supply Divide

This case study illustrates that rules forming the "cultural" foundations of an institutional structure can become deeply embedded within that structure. Early attempts from the MMBW to secure the diversion of the northern flowing Acheron River across the divide were met with anxiety and suspicion. They were also met with a degree of uncertainty and demonstrated that the state government and concerned agencies had not adopted a fixed position on the interbasin transfer of northern flowing water resources. The Forest Commission considered that any transfer of water resources from the northern catchment could only occur in a situation of "last resort". Further misunderstandings between Murray and the MMBW also complicated the decision making process. When the MMBW requested a diversion again, a considerably more robust position emerged with Swinburne's approval of a diversion laden with restrictions. This exposed a widening divide that dissuaded the MMBW from obtaining any entitlement to the Acheron water.

The issue reappeared during the post-war expansion and "aggressive" irrigated development marked by increased rural water spending and increased irrigation storages. The MMBW's proposal to divert Big River waters across the divide was met with similar aggression. The shifting of irrigation's capital costs to the State by the Dunstan government had opened the door for a considerably larger expansion of irrigated development. This expansion was accelerated under the premiership of Henry Bolte. Conflict over the northern flowing waters of the Big River catchment was indicative of the counterposed perspectives of "development" that the MMBW and the SRWSC were engaged in. The MMBW had been thrust into a dynamic decision making environment as it confronted the realities of rapid urban expansion and the prospect that the city's water supply would be pressured by continued expansion and anticipated population growth. The SRWSC, in contrast, were occupied with the highly managed expansion of rural water supply and storage (including continued increases in the allotment of water rights) all of which were aspects of an entrenched view of continued irrigated development. Bolte's decision to block the Big River proposal was clear evidence of a fundamental view (held by Bolte and the SRWSC) that the water "belonged" to irrigation.

The case study of Victoria's urban/rural water supply divide demonstrates how sufficiently embedded rules that reflected the "cultural" foundations of the institution subsequently became highly symbolic to later political actors. The emergence of governance arrangements in response to the MMBW proposal for an inter-basin transfer of the northern flowing Acheron River resulted in the notion of an urban/rural divide becoming firmly established within the hierarchy of rules concerning rural water supply. This was later demonstrated by the entrenched level of opposition to the MMBW's proposal for an inter-basin transfer of the waters from the northern flowing Big River during the Bolte era of government. Bolte's announcement that not "one drop" of water would cross the divide was indicative of a policy preference that adhered to institutional "expectations" and further reflected the embeddedness of the urban/rural divide within the institutional structure.

Reforming and Realigning Rural Water Supply Governance

This case study illustrates that the robust institutional structure required extremely high levels of stimulus in order to bring about a process of reform and realignment. The events concerning a lack of accountability in water administration during the mid-1970s triggered a reform trajectory that exposed broader concerns regarding the policy dominance of a highly centralised SRWSC, a highly fragmented water resources sector, and water management approaches that failed to reflect a changing policy environment. The subsequent investigations, studies and inquiries of the Public Bodies Review Committee entered rural water supply governance into a period of reform. This process of structural reform ultimately claimed rural water supply's administrative arm, the SRWSC and made way for a greater emphasis on issues of economic efficiency and water resources sustainability, including a gradual transition towards broad notions of sustainable development. The process of rural water reform revealed a rigid institutional structure comprising governance arrangements that had guided rural water supply decision making for nearly a century.

Shifts away from the objective of irrigated development were broadly representative of the recognition of a broader shift comprising a transformed policy environment and evolving pressures facing rural water supply. Reformers cast the economic limits of supply expansion, the increasing financial burden of existing supply systems, and the rapidly expanding environmental costs as indicative of the emergence of a mature water economy. A concerted effort towards comprehensive micro-economic reform arose out of a perceived need to formulate "effective" and "efficient" responses to this new policy challenge. The reform process targeted the principal factors of rural water supply governance that had driven the seemingly inexorable advancement of irrigated development. The system of water licenses and entitlements was reorganised to incorporate capacity sharing in the form of bulk and

environmental entitlements. Further provision was made to gradually shift irrigation districts towards a system of transferable entitlements that would allow water to "move" to higher value uses in production, and the principle of "user pays" was progressively introduced to replace outdated water pricing structures. The demise of the SRWSC also coincided with the realignment of rural water supply governance towards regionalisation (including a significant focus on the transition to integrated catchment management). This process advanced further as it began to interact with an emerging federal water reform process that developed under the influence of COAG in the early 1990s. In effect, these early stages of "reform" were achieved through maintaining an overall process that preserved the essential organisation and function of governance arrangements and simultaneously realigned its structure, operation and objectives.

The case study of the reform and realignment rural water supply governance demonstrates the influence that rigid institutional structures maintained over the rural water supply policy environment. The impetus for reform was reflective of a broad paradigm shift that contributed to the formation of new rationalist approaches to rural water governance in connection to interrelated crises concerning rural water supply and its administration and management. Initial reforms were achieved through focusing on issues of accountability and administrative fragmentation before a more comprehensive reform process took hold. Following the realignment of administrative structures alternate policy approaches were developed, then a substantially larger process of legislative reform commenced. Legislative change effectively completed the objective shift away from irrigated development and supplanted it with efficiency, sustainability and sustainable development principles. The further consolidation of this process occurred as it was attached to an emerging process of federal water reform.

With the commencement of reform, the dominance of the institutional structure of rural water supply governance and its relentless drive to expand and develop irrigation was gradually eroded, and its influence progressively diminished. However, the interaction between the robust institutional structure, the key issues that characterised rural water supply governance and the overall policy trajectory that emerged is illustrative of a constrained policy environment that was powerfully influenced by processes of "institutional development". Indeed, institutional development is an apt description of the processes this thesis has observed, analysed and discussed. As Pierson notes:

My argument...is about how lengthy processes of institutionalization condition the circumstances confronting these reformers. I prefer to talk about institutional development rather than institutional change because the former term encourages us to remain attentive to the ways in which previous institutional outcomes can channel and constrain later efforts at institutional innovation.²⁹¹⁸

For rural water supply governance in Victoria, many aspects of today's policy debates reflect features of the previous policy trajectory. Moreover, many of the constituent elements that comprised and supported the overall structure have remained, and they continue to exert an influence over today's policy environment. The dynamic policy environment that exists today is largely characterised by the institutional remnants of the past. In this regard, the constraints that profoundly shaped the developmental path of Victoria's water politics in the past, also provide a window into its future.

⁹¹⁸ Pierson, Politics in Time, 133.

Books and Book Chapters:

- Abrutyn, Seth, 'Revisiting and reinvigorating evolutionary institutionalism: Bringing institutions back to life', in Harry Dahms, Social Theories of History and Histories of Social Theory: 31 (Book Series: Current Perspectives in Social Theory, 2013, ISSN: 0278-1204).
- Alexander, J A, The Life of George Chaffey: A Story of Irrigation Beginnings in California and Australia: Macmillan and Co., Melbourne, 1928.
- Bate, Weston, 'Tommy Bent "a man", in Paul Strangio and Brian Costar (eds.), The Victorian Premiers 1856 2006: The Federation Press, Annandale, NSW, 2006.
- Bebbington, David W, The Mind of Gladstone: Religion, Homer, and Politics: Oxford University Press, New York, 2004.
- Bell, Stephen, 'Institutionalism', in John Summers, Dennis Woodward and Andrew Parkin (eds.), Government, Politics, Power and Policy in Australia, Seventh Edition: Longman, Frenchs Forest, Sydney, 2002.
- Blazey, Peter, Bolte: A Political Biography: The Jacaranda Press, Melbourne, 1972.
- Boyd, R, and P J Richerson, Culture and the Evolutionary Process: University of Chicago Press, Chicago, 1985.
- Brett, Judith, Australian Liberals and the Moral Middle Class: from Alfred Deakin to John Howard: Cambridge University Press, Port Melbourne, 2003.
- Browne, Geoff, 'Stanley Argyle The Incidental Premier', in Paul Strangio and Brian Costar (eds.), The Victorian Premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- Cain, John Cain's Years Power, Parties and Politics: Melbourne University Press, Carlton, 1995.
- Campbell, Andrew, Landcare: Communities Shaping the Land and the Future: Allen & Unwin, St Leonards NSW, 1994.
- Campbell, Craig, 'Liberalism in Australian history, 1880-1920,' in Jill Roe (ed.), Social Policy in Australia: Some Perspectives, 1901-1975: Cassell, Stanmore, NSW, 1976.
- Capling, Ann, and Brian Galligan, Beyond the Protective State The political economy of Australia's manufacturing industry policy: Cambridge University Press, Cambridge, England, 1992.

- Clark, Sandford D, and Ian A Renard, The law of Allocation of Water for Private Use, Australian Water Resources Council – Research Project 69/16: Australian Water Resources Council, Melbourne, 1972.
- Collier, Ruth, and David Collier, Shaping the Political Arena: Critical Junctures, the Labor Movement, and Regime Dynamics in Latin America: Princeton University Press, Princeton, 1991.
- Connell, Daniel, Water Politics in the Murray-Darling Basin: The Federation Press, Annandale, 2007.
- Considine, Mark, 'Labor's Approach to Policy Making', in Mark Considine and Brian Costar, Trials in Power – Cain, Kirner and Victoria 1982-1992: Melbourne University Press, Carlton, 1992.
- Costar, Brian, 'Albert Dunstan: The Jumping Jack Premier', in Paul Strangio and Brian Costar, The Victorian Premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- Costar, Brian, 'Tom Hollway: The Bohemian', in Costar and Strangio (eds.), The Victorian Premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- Crase, Lin, 'An Introduction to Australian Water Policy', in Lin Crase (ed.), Water Policy in Australia: the impact of change and uncertainty: Resources for the Future, Washington D.C., 2008.
- Crawford, R M, Australia, Third Edition: Hutchinson and Co., Melbourne, 1970.
- Cunningham, Noble E, In Pursuit of Reason The Life of Thomas Jefferson: Random House, London, 1988.
- Davidson, B R, Australia Wet or Dry? The Physical and Economic Limits to the Expansion of Irrigation: Melbourne University Press, Carlton, 1969.
- Davidson, Kenneth, 'The Victorian Economy and the Policy of the Cain/Kirner Government', in Mark Considine and Brian Costar, Trials in Power – Cain, Kirner and Victoria 1982-1992: Melbourne University Press, Carlton, 1992.
- Deakin, Alfred, Irrigated India: An Australian View of India and Ceylon, Their Irrigation and Agriculture: E. A. Petherick, Melbourne, 1893.
- Deakin, Alfred, [J A La Nauze and R M Crawford (eds.)], The crisis in Victorian Politics 1879-1881: A Personal Retrospect: Melbourne University Press, Melbourne, 1957.
- Dingle, Tony, and Carolyn Rasmussen, Vital Connections: Melbourne and its Board of Works 1891-1991: Penguin Books, Ringwood, 1991.

- Dovers, Stephen 'Discrete, Consultative Policy Processes: Lessons from the National Conservation Strategy for Australia and National Strategy for Ecologically Sustainable Development', in Stephen Dovers and Su Wild River (eds.), Managing Australia's Environment: The Federation Press, Annandale, NSW, 2003.
- DiMaggio, Paul, 'Interest and Agency in Institutional Theory', in Lynne Zucker, Institutional Patterns and Organizations: Culture and Environment: Ballinger Publishing Co., Cambridge, 1988.
- Dunstan, David, Governing the metropolis: politics, technology and social change in a Victorian city: Melbourne 1850-1891: Melbourne University Press, Melbourne, 1984.
- Dunstan, David, 'Henry Bolte: The Lucky Developer', in Paul Strangio and Brian Costar, The Victorian Premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- Economou, Nicholas, 'Greening the Garden State? Labor and Environmental Policy in Victoria', in Mark Considine and Brian Costar, Trials in Power Cain, Kirner and Victoria 1982-1992: Melbourne University Press, Carlton, 1992.
- Eggleston, F W, State Socialism in Victoria, (P.S. King and Son, London, 1932).
- Ellis, Ulrich, A History of the Australian Country Party: Melbourne University Press, Parkville, 1963.
- Ewing, Sarah 'Catchment Management Arrangements', in Stephen Dovers and Su Wild River (eds.), Managing Australia's Environment: The Federation Press, Annandale, NSW, 2003.
- Feagin, Joe R, Anthony M Orum, and Gideon Sjoberg (eds.), A Case for the Case Study, University of North Carolina Press, Chapel Hill, 1991.
- Foley, Kevin, 'Victoria's Quangos: The 1980s and Beyond', in S R Davis et.al, Quangos: the problem of accountability: Centre of Policy Studies Seminar Monash University, 1982.
- Getzler, Joshua A, History of Water Rights at Common Law: Oxford University Press, Melbourne, 2004.
- Goodin, R E, 'Institutions and Their Design', in R E Goodin (ed.), The Theory of Institutional Design: Cambridge University Press, Oakleigh, 1996.
- Graham, B D, The Formation of the Australian Country Parties: Australian National University Press, Canberra, 1966.
- Hall, Peter A, Governing the Economy: The Politics of State Intervention in Britain and France: Oxford University Press, New York, 1986.
- Hall, Peter A, 'Historical Institutionalism in Rationalist and Sociological Perspective', in James Mahoney and Kathleen Thelen (eds.), Explaining Institutional Change: Ambiguity, Agency, and Power: Cambridge University Press, New York, 2009.

- Hall, Peter A, 'Preference Formation as a Political Process: The Case of Monetary Union in Europe', in Ira Katznelson and Barry Weingast (eds.), Preferences and Situations – Points of Intersection between Historical and Rational Choice Institutionalism: Russell Sage Foundation, New York, 2005.
- Hall, Peter A, The Political Power of Economic Ideas: Keynesianism across Nations: Princeton University Press, Princeton, 1989.
- Hancock, W K, Australia: The Jacaranda Press, Melbourne, 1966.
- Holmes, Jean, 'State Enterprise and Labor in the Eighties', in Allan Peachment (Ed), Westminster INC – A Survey of Three States in the 1980s: Federation Press, Annandale NSW, 1995.
- Houston, L G, Ministers of Water Supply in Victoria: The Specialty Press, North Clayton, 1965.
- Immergut, Ellen. 'Historical-Institutionalism in Political Science and the Problem of Change', in Andreas Wimmer and Reinhart Kössler, Understanding Change: Models, Methodologies, and Metaphors: Palgrave Macmillan, New York, 2006.
- Jaensch, Dean, and Max Teichmann, The Macmillan Dictionary of Australian Politics: The Macmillan Co., South Melbourne, 1979.
- Karl, Terry Lynn, The Paradox of Plenty: Oil Booms and Petro-States: University of California Press, Los Angeles, 1997.
- Keating, Michael, and John Wanna, 'Remaking Federalism?', in Michael Keating, John Wanna & Patrick Weller, Institutions on the Edge? Capacity for Governance: Allen & Unwin, St Leonards, NSW, 2000.
- Keating, Jenny, The drought walked through: A history of water shortage in Victoria: Department of Water Resources Victoria, Melbourne, 1992.
- Kingdon, John W, Agendas, Alternatives and Public Policies: Little, Brown, Boston, 1984.
- Kiss, Rosemary, 'A Hard Road: Transport Policy', in Mark Considine and Brian Costar, Trials in Power – Cain, Kirner and Victoria 1982-1992: Melbourne University Press, Carlton, 1992.
- Lack, John, 'Dr Jekyll and Mr Hyde? Service and Gillies: The grand coalition premiers 1883-1890,' in Paul Strangio and Brian Costar (eds.), The Victorian premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- La Nauze, J A, Alfred Deakin: A Biography, Volume 1: Melbourne University Press, Carlton, 1965.

La Nauze, J A, Political Economy in Australia, (Melbourne University Press, Carlton, 1949).

- Levi, Margaret, 'A Model, a Method and a Map: Rational Choice in Comparative and Historical Analysis', in Mark Irving Lichbach and Alan S. Zuckerman, Comparative Politics – Rationality, Culture and Structure: Cambridge University Press, New York, 1997.
- List, Friedrich, (translated by Sampson S Lloyd), The National System of Political Economy: Longmans Green and Co., London, 1909.
- Love, Peter, 'Elmslie, Prendergast and Hogan: Labouring against the tide', in Paul Strangio and Brian Costar (eds.), The Victorian Premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- Macintyre, Stuart, A Colonial Liberalism: The Lost World of Three Victorian Visionaries: Oxford University Press, South Melbourne, 1991.
- Macintyre, Stuart, A Concise History of Australia, Third Edition: Cambridge University Press, Melbourne, 2009.
- March, James G, and Johan P Olsen, 'Elaborating the New Institutionalism', in Sarah A Binder, R A W Rhodes and Bert A Rockman, The Oxford Handbook of Political Institutions: Oxford University Press, Oxford, 2006.
- March, James G, and Johan P Olsen, Rediscovering Institutions The Organizational Basis of Politics: The Free Press, New York, 1989.
- Martin, Colin Swinburne, Irrigation and Closer Settlement in the Shepparton District 1836 1906: Melbourne University Press, Carlton, 1955.
- Moe, Terry, 'The Politics of Structural Choice: Toward a Theory of Public Bureaucracy', in O E Williamson (ed.), Organization Theory: From Chester Barnard to the Present and Beyond, Oxford University Press, Oxford, 1990.
- Mulligan, Helen K, and John J Pigram, Water Administration in Australia: Agenda for Change: University of New England, Armidale, 1989.
- Murdoch, Walter, Alfred Deakin: A Sketch: Bookman Press, Melbourne, 1999 [1923].
- Muir, Barry, Bolte From Bamganie, (Hill of Content Publishing Co., Melbourne, 1973).
- Murphy, John, 'The Politics of Pain: Health Policy under Cain and Kirner', in Mark Considine and Brian Costar, Trials in Power – Cain, Kirner and Victoria 1982-1992: Melbourne University Press, Carlton, 1992.
- Musgrave, Warren, 'Historical Development of Water Resources in Australia Irrigation Policy in the Murray-Darling Basin', in Lin Crase (ed.), Water Policy in Australia: the impact of change and uncertainty: Resources for the Future, Washington D C, 2008.
- Nethercote, John R (ed.), Liberalism and the Australian Federation: The Federation Press, Annandale, NSW, 2001.

- North, Douglass C, Institutions, Institutional Change and Economic Performance: Cambridge University Press, Melbourne, 1996.
- Painter, Martin, The Council of Australian Governments and Intergovernmental Cooperation – Competitive or Collaborative Federalism?: Federalism Research Centre, Canberra, 1995.
- Papadakis, Elim, Environmental politics and institutional change: Cambridge University Press, Melbourne, 1996.
- Paterson, John, 'Water planning: A new start in Victoria', in W R D Sewell, J W Handmer and D I Smith, Water Planning in Australia: from myths to reality: Centre for Resource and Environmental Studies, Australian National University, Canberra, 1985.
- Pierson, Paul, Politics in Time: History, Institutions, and Social Analysis: Princeton University Press, Princeton, 2004.
- Pigram, John J, Australia's Water Resources: from use to management: CSIRO Publishing, Collingwood, 2006.
- Peters, B Guy, Institutional Theory in Political Science: The 'New Institutionalism', Second Edition: Continuum, London, 2005.
- Powell, J M, Watering the Garden State Water, land and community in Victoria 1834-1988: Allen and Unwin, North Sydney, 1989.
- Powell, J M, 'Snakes and Cannons: Water Management and the Geographical Imagination in Australia', in Stephen Dovers (ed.), Environmental History and Policy – Still Settling Australia: Oxford University Press, Melbourne, 2000.
- Powell, Walter, and Paul DiMaggio (eds.), The New Institutionalism in Organizational Analysis: University of Chicago Press, Chicago, 1991.
- Prior, Tom, Bolte by Bolte: Craftsman Publishing, Melbourne, 1990.
- Pusey, Michael, Economic Rationalism in Canberra: A Nation-Building State Changes its Mind: Cambridge University Press, Oakleigh, 1991.
- Quick, John, and Robert Garran, The annotated constitution of the Australian Commonwealth: (Angus and Robertson, Sydney, 1901.
- Rickard, John, "'Iceberg" Irvine and the politics of anti-Labor', in Paul Strangio and Brian Costar (eds.), The Victorian Premiers 1856 – 2006: The Federation Press, Annandale, NSW, 2006.
- Roberts, Stephen H, History of Australian land settlement 1788-1920: Macmillan, Melbourne, 1968.

- Roberts, Winsome, 'Liberalism: The Nineteenth Century Legacy A perspective from the grass-roots,' in John R Nethercote (ed.), Liberalism and the Australian Federation: The Federation Press, Annandale, NSW, 2001.
- Rodan, Paul 'Rupert 'Dick' Hamer: The urbane liberal', in Paul Strangio and Brian Costar, The Victorian Premiers 1856-2006: The Federation Press, Annandale, 2006.
- Rowse, Tim, Australian Liberalism and National Character: Kibble Books, Malmsbury, Victoria, 1978.
- Russell, E W, 'Ministerial and Parliamentary Accountability of Public Bodies', in S R Davis et.al, Quangos: the problem of accountability: Centre of Policy Studies Seminar – Monash University, 1982.
- Sawer, Marian, The Ethical State? Social Liberalism in Australia: Melbourne University Press, Melbourne, 2003.
- Sayers, C E, David Syme A Life: F.W. Cheshire, Melbourne, 1965.
- Schedvin, C B, Australia and the Great Depression A Study of Economic Development and Policy in the 1920s and 1930s: Sydney University Press, Sydney, 1970.
- Scott, W Richard, 'Institutions and Organizations: Towards a Theoretical Synthesis', in W Richard Scott, John W Meyer and Associates, Institutional Environments and Organizations – Structural Complexity and Individualism: Sage Publications, London, 1994.
- Sewell, W R D, 'Comprehensive Water Planning: An Agenda for Change', in W R D Sewell J W Handmer and D I Smith, Water Planning in Australia – From Myths to Reality: Centre for Resource and Environmental Studies, Australian National University, Canberra, 1995.
- Sidgwick, Henry, The Principles of Political Economy: Macmillan and Co., London, 1883.
- Skocpol, Theda, Protecting Soldiers and Mothers The Political Origins of Social Policy in the United States: Harvard University Press, Cambridge, Massachusetts, 1992.
- Skowronek, Stephen, Building a New American State: The Expansion of National Administrative Capacities: Cambridge University Press, New York, 1982.
- Smith, David Ingle, Water in Australia Resources and Management: Oxford University Press, Melbourne, 1998.
- Smith, Dingle, 'Water Resources Management', in Stephen Dovers and Su Wild River (eds.), Managing Australia's Environment: The Federation Press, Annandale, NSW, 2003.
- Snow, David, and Sarah Soule, A primer on social movements: W. W. Norton, New York, 2010.

- Spann, R N, and Ruth Atkins (eds.), Public Administration in Australia: Government Printer, Sydney, 1973.
- Steinmo, Sven, Kathleen Thelen, and Frank Longstreth (eds.), Structuring Politics Historical institutionalism in comparative analysis: Cambridge University Press, Cambridge, UK, 1992.
- Steinmo, Sven, 'What is Historical Institutionalism?', in Donatella Della Porta and Michael Keating, Approaches and Methodologies in the Social Sciences: a pluralist perspective: Cambridge University Press, New York, 2008.
- Stoeckel, Kate, Romany Webb, Luke Woodward, and Amy Hankinson, Australian Water Law: Lawbook Co., Pyrmont, 2012.
- Strangio, Paul, 'Broken heads and flaming houses: Graham Berry, the wild colonial', in Paul Strangio and Brian Costar (eds.), The Victorian Premiers 1856 – 2006: The Federation Press, Annandale, NSW, 2006.
- Strangio, Paul, 'John Cain jnr: the burden of history', in Paul Strangio and Brian Costar, The Victorian Premiers 1856-2006: The Federation Press, Annandale, NSW, 2006.
- Sugden, E H, and F W Eggleston, George Swinburne A Biography: Angus and Robertson Ltd., Sydney, 1931.
- Thelen, Kathleen, How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan, Cambridge University Press, Cambridge, UK, 2004.
- Thelen, Kathleen, and Sven Steinmo, 'Historical Institutionalism in comparative politics', in Steinmo, Thelen and Longstreth, Structuring Politics: Historical institutionalism in comparative analysis, Cambridge University Press, Cambridge, UK, 1992.
- Tisdall, John, John Ward and Tony Grudzinski (eds.), The Development of Water Reform in Australia Technical Report 02/5 May 2002: Cooperative Research Centre for Catchment Hydrology, Canberra, 2002.
- Turner, Henry Gyles, A History of the Colony of Victoria Vol. II. A.D. 1854-1900: Heritage Publications, Melbourne, 1973.
- Viggers, James, David Lindenmayer, and Haylee Weaver, Melbourne's Water Catchments: Perspectives on a World-Class Water Supply: CSIRO Publishing, Melbourne, 2013.
- Weber, Max, [G. Roth and C. Wittich (eds.)], Economy and Society An Outline of Interpretive Sociology: University of California Press, Berkeley, 1978.
- Wigmore, Lionel, Struggle for the Snowy: the background of the Snowy Mountains Scheme: Oxford University Press, London, 1968.
- Williams, William, A History of Bacchus Marsh and its Pioneers, 1836-1936: Crisp, Bacchus Marsh, 1936.

World Water Council, World Water Vision Commission Report: A Water Secure World – Vision for Water, Life and the Environment: World Water Council, Marseille, 2000.

E-Books

Pierson, Paul, Politics in Time, (Princeton, 2011), ProQuest E-book.

Legislation and Cases

Water Conservation Act 1881 (Vic)

Water Conservation Act 1883 (Vic)

Irrigation Act 1886 (Vic)

Mildura Irrigation Trusts Act 1895 (Vic)

Water Supply Advances Relief Act 1899 (Vic)

Melbourne and Metropolitan Board of Works Act 1890 (Vic)

Public Works Statute 1865 (Vic)

Irrigation Amendment Act 1889 (Vic)

Water Rights Act 1896 (NSW)

Water Rights Act 1902 (NSW)

Water Act 1905 (Vic)

Constitution Act 1903 (Vic)

Commonwealth of Australia Constitution Act 1900 (UK)

New South Wales v Commonwealth (1915) 20 CLR 54

Town and Country Planning (Metropolitan Area) Act 1949 (Vic).

Wood Pulp Agreement Act 1936 (Vic)

Water (Irrigation) Act 1959 (Vic)

Water Resources Act 1975 (Vic)

Parliamentary Committees (Public Bodies Review) Act 1980 (Vic)

Water (Central Management Restructuring) Act 1984 (Vic)

Water Act 1989 (Vic)

Water (Further Amendment) Act 1994 (Vic)

Manuscripts

Papers of Alfred Deakin, National Library of Australia (Canberra).

Music

Lovelock, Bill, Snowy River Roll (words and music), (Sydney, Southern Music Publishing Co., 1958).

Newspapers:

Albury Banner and Wodonga Express (NSW)

Age (Melbourne)

Argus (Melbourne)

Bendigo Advertiser (Vic)

Weekly Times (Melbourne)

Gippsland Times (Sale, Vic)

Punch (Melbourne)

Sydney Mail and New South Wales Advertiser (Sydney)

Horsham Times (Vic)

Camperdown Chronicle (Vic)

Healesville Guardian and Yarra Glen Guardian (Vic)

Official Sources

Commonwealth Parliamentary Debates - House of Representatives

Victorian Parliamentary Debates - Legislative Assembly

Victorian Parliamentary Debates - Legislative Council

Official Report of the National Australasian Convention Debates, (Sydney, 1891).

Official Report of the National Australasian Convention Debates, (Adelaide, 1897).

Official Record of the Debates of the Australasian Federal Convention, Third Session, (Melbourne, 1898).

Papers and Articles

- Abrutyn, Seth, and Justin Van Ness, 'The Role of Agency in Sociocultural Evolution: Institutional Entrepreneurship as a Force of Structural and Cultural Change', Thesis Eleven, 127 (1) (2015): 52-77.
- Ballinger, Robyn, 'Landscapes of Abundance and Scarcity on the Northern Plains of Victoria', Provenance: The Journal of Public Record Office Victoria, 7 (2008).
- Bate, Weston, 'Bent, Sir Thomas (1838–1909)', Australian Dictionary of Biography: (First published, 1969).
- Battilana, Julie, 'Agency and Institutions: The Enabling Role of Individuals' Social Position', Organization, 13 (5) (2006): 653-676.
- Beever, Margot, 'Gillies, Duncan (1834–1903)', Australian Dictionary of Biography: (First published, 1972).
- Bennett J M, and Ann G Smith, 'Irvine, Sir William Hill (1858–1943)', Australian Dictionary of Biography: (First published, 1983).
- Burrows G H, and L Goldberg, 'Fitzgerald, Sir Adolf Alexander (1890–1969)', Australian Dictionary of Biography: (First published, 1996).
- Chenoweth, Jonathan, 'Conflict in Water Use in Victoria, Australia: Bolte's Divide', Australian Geographical Studies, 36 (3) (1998): 248-261.
- Churchyard, N J, 'Pioneers of Irrigation in Victoria: Hugh McColl MLA Visionary and Legislator', (A collection of articles from the journal Aqua Republished as a single issue, State Rivers and Water Supply Commission, (Armadale, 1976).
- Clark Sandford, 'Inter-Governmental Quangos: The River Murray Commission', Australian Journal of Public Administration, 42 (1) (1983): 154-172.
- Colomy, Paul, 'Neofunctionalism and Neoinstitutionalism: Human Agency and Interest in Institutional Change', Sociological Forum, 13 (2) (1998): 265-300.
- Costar, Brian, 'Old, Francis Edward (1875–1950)', Australian Dictionary of Biography: (First published, 1988).
- Dacin, Tina, Jerry Goodstein, and W Richard Scott, 'Institutional Theory and Institutional Change: Introduction to the Special Research Forum', Academy of Management Journal, 45 (1) (2002): 45-57.

- Davis, Peter N, 'Australian and American Water Systems Compared', Boston College Law Review, 9 (3) (1968): 647-710.
- Day, Diana, 'Water as a social good', Australian Journal of Environmental Management, 3 (1) (1996): 26-41.
- Dorado, Silvia, 'Institutional Entrepreneurship, Partaking, and Convening', Organizational Studies, 26 (3) (2005): 385-414.
- Druckman, James, and Arthur Lupia, 'Preference Formation', Annual Review of Political Science, 3 (2000): 1-24.
- East, Lewis Ronald, 'The Development of a National Water Politics in Victoria', Journal of the Institution of Engineers Australia, January-February (1958).
- Eisenstadt, Shmeul N, 'Cultural Orientations, Institutional Entrepreneurs, and Social Change: Comparative Analysis of Traditional Civilizations', American Journal of Sociology, 85 (4) (1980): 840-869.
- Fligstein, Neil, 'Social Skill and Institutional Theory', American Behavioural Scientist, 40 (4) (1997): 397-405.
- Foley, Kevin, 'Policy Analysis by Parliamentary Committee: The Origins, Methodology and Significance of Victoria's Public Bodies Review Committee', paper presented to the Australasian Political Science Association (August, 1981).
- Freebairn, John, 'Principles for the Allocation of Scarce Water', Policy Forum: Water Pricing and Availability, The Australian Economic Review, 36 (2) (2003): 203-212.
- Garud, Raghu, Cynthia Hardy, and Steve Maguire, 'Institutional Entrepreneurship as Embedded Agency: An Introduction to the Special Issue', Organization Studies, 28 (7) (2007): 957-969.
- Gerring, John, 'What Is a Case Study and What Is It Good For?', American Political Science Review, 98 (2), (2004): 341-354.
- Griswold, A Whitney, 'The Agrarian Democracy of Thomas Jefferson,' The American Political Science Review, 40 (4) (1946): 657-681.
- Hall, Peter A, and Kathleen Thelen, 'Institutional Change in Varieties of Capitalism', Socio-Economic Review, 7 (1) (2009): 7-34.
- Hall, Peter A, and Rosemary Taylor, 'Political Science and the Three New Institutionalisms', Political Studies, 44 (1996): 936-957.
- Hall, Peter A, 'Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain', Comparative Politics, 25 (3) (1993): 275-296.
- Hall, Richard, 'Professionalization and Bureaucratization', American Sociological Review, 33 (1) (1968): 92-104.

Hay, Colin, and Daniel Wincott, 'Structure, Agency and Historical Institutionalism', Political Studies, 6 (5) (1998): 951-957.

- Halligan, John, and Michael O'Grady, 'Public Sector Reform: Exploring the Victorian Experience', Australian Journal of Public Administration, 44 (1) (1985): 34-45.
- Hood, Christopher, 'A Public Management for all Seasons', Public Administration, 69 (2) (1991): 3-19.
- Immergut, Ellen, 'The Theoretical Core of the New Institutionalism', Politics and Society, 26 (1) (1998): 5-34.
- Jordens, Ann-Mari, 'Tucker, Albert Edwin (1843–1902)', Australian Dictionary of Biography, (First published, 1976).
- Kay, Adrian, 'A Critique of the use of Path Dependency in Policy Studies', Public Administration, 83 (3) (2005): 553-571.
- Krasner, Stephen, 'Approaches to the State: Alternative Conceptions and Historical Dynamics', Comparative Politics, 16 (2) (1984): 223-246.
- Keneley, Monica, 'Land of Hope: Soldier Settlement in the Western District of Victoria 1918-1930', The Electronic Journal of Australian and New Zealand History, (2000).
- Kenyon, A S, 'Stuart Murray and Irrigation in Victoria', The Victorian Historical Magazine, 10 no. 39 (1925): 112-122.
- Langford, John, Christine Forster, and Duncan Malcolm, Towards a Financially Sustainable Irrigation System – Lessons from the State of Victoria, Australia, World Bank Technical Paper No. 413, (Washington, 1999).
- Lauer, T E, 'The Common Law Background of the Riparian Doctrine', Missouri Law Review, 28 (1963): 60-107.
- Lindblom, Charles, 'The Science of 'Muddling Through'', Public Administration Review, 19 (2) (1959): 79-88.
- Lowndes, Vivien, "Varieties of New Institutionalism: A Critical Appraisal," Public Administration, 74 (2) (1996): 181-197.
- McNicoll, Ronald, 'Davidson, William (1844–1920)', Australian Dictionary of Biography: (First published, 1981).
- March, James G, and Johan P Olsen, 'The New Institutionalism: Organizational Factors in Political Life', The American Political Science Review, 78 (3) (1984): 734-749.
- Mule, Rosa, 'New Institutionalism: Distilling some 'Hard Core' Propositions in the Works of Williamson and March and Olsen', Politics, 19 (3) (1999): 141-145.

- Olsen, Johan P, 'Change and Continuity: An Institutional Approach to Institutions of Democratic Government', European Political Science Review, 1 (1) (2009): 3-32.
- Orchard, Lionel, 'Managerialism, Economic Rationalism and Public Sector Reform in Australia: Connections, Divergences, Alternatives', Australian Journal of Public Administration, 57(1) (1998): 19-32.
- Painter, Martin, 'Economic Policy, Market Liberalisation and the End of Australian Politics', Australian Journal of Political Science, 31 (3) (1996): 287-300.
- Parker, Kathryn, and Edward Oczkowski, 'Water Reform and Co-operation', Journal of Economic and Social Policy, 8 (1) (2003): 35-51.
- Parsons, Talcott, 'Evolutionary Universals in Society', American Sociological Review, 29 (3) (1964): 339-357.
- Paterson, John, 'Law and Water Rights for Improved Water Resource Management', (paper presented to the Workshop on the Contribution of Economic Incentives to the Improvement of Natural Resources Management, Paris, 22-24 April 1987).
- Patrick, Alison, 'Swinburne, George (1861-1928)', Australian Dictionary of Biography: (First published, 1990).
- Paul, J B, 'Dunstan, Sir Albert Arthur (1882–1950)', Australian Dictionary of Biography: (First published, 1981).
- Pierson, Paul, 'Increasing Returns, Path Dependence, and the Study of Politics', American Political Science Review, 94 (2) (2000): 251-267.
- Pierson, Paul, 'The Limits of Design: Explaining Institutional Origins and Change', Governance: An International Journal of Policy and Administration, 13 (4) (2000), 475-499.
- Pierson, Paul, 'The Study of Policy Development', The Journal of Policy History, 17 (1) (2005): 34-51.
- Pierson, Paul, 'When Effect Becomes Cause: Policy Feedback and Political Change', World Politics, 45 (4) (1993): 595-628.
- Powell, J M, 'The mapping of 'soldier settlement': A note for Victoria, 1917–29', Journal of Australian Studies, Vol 2 (3) (1978): 44-51.
- Quinn, Patrick F, 'Agrarianism and the Jeffersonian Philosophy,' The Review of Politics, 2 (1) (1940): 87-104.
- Riker, William, 'Implications from the Disequilibrium of Majority Rule for the Study of Institutions', The American Political Science Review, 74 (2) (1980): 432-446.
- Rose, Carol, 'Energy and Efficiency in the Realignment of Common-Law Water Rights', Journal of Legal Studies, 19 (1990): 261-296.

- Russell, K F, 'Allen, Sir Harry Brookes (1854–1926)', Australian Dictionary of Biography, (First published, 1979).
- Sawer, Marian, 'The ethical state: Social liberalism and the critique of contract,' Australian Historical Studies, 31 114 (2000): 67-90.
- Schneider, Mark, and Paul Teske, 'Toward a Theory of the Political Entrepreneur: Evidence from Local Government', American Political Science Review, 86 (3) (1992): 737-747.
- Serle, Geoffrey, 'McClelland, David John (1873–1962)', Australian Dictionary of Biography: (First published, 1986).
- Shaw, A G L, 'Argyle, Sir Stanley Seymour (1867–1940)', Australian Dictionary of Biography: (First published, 1979).
- Shepsle, Kenneth, 'Institutional Arrangements and Equilibrium in Multidimensional Voting Models', American Journal of Political Science, 23 (1) (1979): 27-59.
- Shepsle, Kenneth, and Barry Weingast, 'Institutionalizing Majority Rule: A Social Choice Theory with Policy Implications', The American Economic Review, 72 (2) (1982): 367-371.
- Stråth, Bo, 'Mitteleuropa from List to Naumann,' European Journal of Social Theory, 11 (2) (2008): 171-183.
- Teubner, Gunther, 'Substantive and Reflexive Elements in Modern Law', Law and Society Review, 17 (2) (1983): 239-285.
- Thelen, Kathleen, 'Historical Institutionalism in Comparative Politics', Annual Review of Political Science, 2 (1999): 369-404.
- Vogeler, Collette Sophie, 'Paradigm Change and Cycles of Policy Change The Case of Economic Policymaking in Brazil', (paper presented to the 1st International Conference on Public Policy, Grenoble, June 26-28 2013).
- Watson, Alistair 'Approaches to Increasing River Flows' Policy Forum: Water Pricing and Availability, The Australian Economic Review, 36 (2) (2003): 213-224.
- Weir, Margaret, and Theda Skocpol, 'State Structures and Social Keynesianism Responses to the Great Depression in Sweden and the United States', International Journal of Comparative Sociology, 24 (1-2) (1983): 4-29.
- Wettenhall, R L, 'Quangos, Quagos and the Problems of Non-Ministerial Organization', Australian Journal of Public Administration, 42 (1) (1983): 5-52.
- Whitwell, Greg, 'The Triumph of Economic Rationalism: The Treasury and the Market Economy', Australian Journal of Public Administration, 49 (2) (1990): 124-140.

- Wildavsky, Aaron, Choosing Preferences by Constructing Institutions: A Cultural Theory of Preference Formation', The American Political Science Review, 81 (1) (1987): 3-22.
- Young, M D, and J C McColl, 'Robust Reform: The Case for a New Water Entitlement System in Australia', The Australian Economic Review 36 (2), 2003: 225-234.
- Yule, Valerie, 'Murray, Stuart (1837–1919)', Australian Dictionary of Biography: (First published, 1974).
- Zucker, Lynne, 'Institutional Theories of Organization', Annual Review of Sociology, 13 (1) (1987): 443-464.

Reports and Government Publications:

- ACIL Australia, Transferability of Water Entitlements Consultants Report to the Department of Water Resources Victoria, (Collingwood, ACIL Australia, 1984).
- Allen, H B, Victoria, Second General Report by Professor H B Allen M.D, Parliamentary Paper (no.76), (Melbourne, Government Printer, 1891).
- Arnold, V H, Victorian Year Book 1965, (Melbourne, Commonwealth Bureau of Census and Statistics, 1965).
- Borrie, E F, Melbourne Metropolitan Planning Scheme 1954 Report, (Melbourne, MMBW, 1953).
- Centre of Policy Studies (Monash University), Study of the Distribution of Cost and Benefits of Victoria's Irrigation Systems, (Melbourne, 1983).
- Claydon, Greg, Water Allocations and Entitlements: Towards a national framework for property rights in water – Review of Policy Issues and Options, Department of Primary Industries and Energy (Canberra, 1995).
- Council of Australian Governments, Communiqué for the meeting of 11 April 1995, Canberra: Council of Australian Governments.
- Council of Australian Governments, Communiqué for the meeting of 25 February 1994, Hobart: Council of Australian Governments.
- Deakin, Alfred, Victoria, Irrigation in Western America so far as it has Relation to the Circumstances of Victoria – A Memorandum for the Members of the Royal Commission on Water Supply, Parliamentary Paper (no.19), (Melbourne, Government Printer, 1885).
- Deakin, Alfred, Victoria, Royal Commission on Water Supply Fourth Progress Report Irrigation in Egypt and Italy, Parliamentary Paper (no.111), (Melbourne, Government Printer, 1887).

- Delacorn, Adam, Royal Commissions in Victoria: 1854-2009, Department of Parliamentary Services Research Paper, (Melbourne, Parliamentary Library, 2011).
- Department of Water Resources, Victoria, Third Annual Report, (Melbourne, Department of Water Resources, 1987).
- Department of Water Resources, Victoria, Water Law Review Discussion Paper Water Resource Management Report No 1, (Melbourne, Government Printer, 1986).
- Department of Water Resources, Victoria, Water Victoria: A Scarce Resource, (Melbourne, Department of Water Resources, 1992).
- Drake, E T, (Government Statist), Victorian Year-Book 1907-08, (Melbourne, Government Printer, 1908).
- Federal-State Relations Committee, Victoria, Report on Australian Federalism: The Role of the States, (Melbourne, Government Printer, 1998).
- Gordon, G, and A Black, Victoria, Supply of Water to the Northern Plains, Reports of the Board Appointed to Advise on the Feasibility of Giving a Supply of Water to the Northern Plains – Part 1. Supply for domestic purposes and use of stock, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1881).
- Gordon, G, and A Black, Victoria, Supply of Water to the Northern Plains Irrigation First Report, Parliamentary Paper (no.74), (Melbourne, Government Printer, 1882).
- Government Statist, Victoria, Victorian Year-Book 1903, (Melbourne, Government Printer, 1903).
- Gutteridge, Haskins and Davey, ACIL Australia, Ernst and Young, Future Management Review: Rural Water Commission – Final Report to the Steering Committee, (Melbourne, 1992).
- Inter-State Royal Commission on the River Murray, Victoria, Parliamentary Paper (no.35), (Melbourne, Government Printer, 1902).
- Joint-Select Committee on Drainage, Victoria, Final Report, Parliamentary Paper (no.D11), (Melbourne, Government Printer, 1970).
- Management of the Water Industry, Parliamentary Paper (no. D3), (Melbourne, Government Printer, 1983).
- Murray, Stuart, Victoria, Royal Commission on Water Supply Further (Third) Progress Report, Parliamentary Paper (no.53), (Melbourne, Government Printer, 1885).
- Natural Resources and Environment Committee, Victoria, Regional Water Strategy Plan for the South-western Region of Victoria – First Report: Augmentation of Geelong's Water Supply to the Year 1995, Parliamentary Paper (no.D50), (Melbourne, Government Printer, 1984).

- Natural Resources and Environment Committee, Victoria, Report upon Water Resources Management in Victoria – South-western Region Water Management Strategy, (Melbourne, Government Printer, 1989).
- Neilson Associates, Victoria, Public Bodies Review Committee, Report on Irrigation Management in Victoria, (Melbourne, 1981).
- Public Bodies Review Committee, Victoria, Eighth Report to the Parliament Future Structures for Water Management Volume 3 – Final Report: The Central and Regional Management of the Water Industry, Parliamentary Paper (no. D3), (Melbourne, Government Printer, 1983).
- Public Bodies Review Committee, Victoria, Second Report to the Parliament Future Structures for Water Management – Part One: Regional and Local Administration, Parliamentary Paper (no.D18), (Melbourne, Government Printer, 1981).
- Public Bodies Review Committee, Victoria, 'Twelfth Report to the Parliament Future Structures for Water Management – Final Report: Irrigation and Water Resource Management', Parliamentary Paper (no.D37), (Melbourne, Government Printer, 1984).
- Public Works Committee, Victoria, The Parliamentary Public Works Committee on The desirability and practicability of constructing a storage reservoir and any other necessary works to conserve the flow of the Avoca River to improve water supplies for domestic and stock and irrigation purposes to lands along the Stream, Parliamentary Paper, (Melbourne, 1943).
- Report of the Mildura Royal Commission, Victoria, Parliamentary Paper (no.19), (Melbourne, Government Printer, 1896).
- Report of the Royal Commission on the Murray Waters, Victoria, Parliamentary Paper (no. 7), (Melbourne, Government Printer, 1910).
- Report of the Royal Commission on Soldier Settlement, Victoria, Parliamentary Paper (no.32), (Melbourne, Government Printer, 1925).
- Report of the Royal Commission on Water Supply, Victoria, Parliamentary Paper (no.20), (Melbourne, Government Printer, 1896).
- Ronalds, Albert F, Report on Future Water Supply of the Melbourne Metropolitan Area, (Melbourne, Melbourne and Metropolitan Board of Works, 1962).
- Royal Commission into the Expediency of Amending the Water Act 1928, Victoria, (First Report), Parliamentary Paper (no. 6), (Melbourne, Government Printer, 1936).
- Royal Commission into the Expediency of Amending the Water Act 1928, Victoria, (Fourth Report), Parliamentary Papers (no.2), (Melbourne, Government Printer, 1937).
- Royal Commission into the Expediency of Amending the Water Act 1928, Victoria, (Second Report), Parliamentary Paper (no. 11), (Melbourne, Government Printer, 1936).

- Royal Commission on Closer Settlement, Victoria, Final Report as to the Working of the Closer Settlement Acts in the Irrigable Districts, Parliamentary Paper (no.29), (Melbourne, Government Printer, 1916).
- Royal Commission on State Forests and Timber Reserves, Victoria, Progress Report on the Victoria Forest: its resources, management, and control, Parliamentary Paper (no.54), (Melbourne, 1898).
- Royal Commission on State Forests and Timber Reserves Victoria, Thirteenth Progress Report, Parliamentary Paper (no.10), (Melbourne, Government Printer, 1900).
- Royal Commission to Inquire into and Report upon the Sanitary Condition of Melbourne, Victoria, Final Report, Parliamentary Paper (no.7), (Melbourne, Government Printer, 1890).
- Rural Water Commission of Victoria, RWC Annual Report 1985-86, Parliamentary Paper (no.1) (Melbourne, 1986).
- Rural Water Commission of Victoria, Victoria, RWC Annual Report 1986-87, Parliamentary Paper (no.60), (Melbourne, Government Printer, 1987).
- Rural Water Commission of Victoria, RWC Annual Report 1987-1988, Parliamentary Paper (no.37), (Melbourne, 1988).
- Salinity Committee, Victoria, Final Report on Water Allocations in Northern Victoria, Parliamentary Paper (no. D48), (Melbourne, Government Printer, 1984).
- Salinity Committee, Victoria, Salt of the Earth: Final Report on The Causes, Effects and Control of Land and River Salinity in Victoria, Parliamentary Paper (no. D49), (Melbourne, Government Printer, 1984).
- Soil Conservation Authority, Victoria, Tenth Annual Report, Parliamentary Paper (no. 14), (Melbourne, Government Printer, 1959).
- State Rivers and Water Supply Commission, Fifteenth Annual Report 1919-20, Parliamentary Paper (2nd Session no.2), (Melbourne, Government Printer, 1920).
- State Rivers and Water Supply Commission, Fiftieth Annual Report 1954-55, Parliamentary Paper (no.21), (Melbourne, Government Printer, 1955).
- State Rivers and Water Supply Commission, Fifty-Fifth Annual Report 1959-60, Parliamentary Paper (no.31), (Melbourne, Government Printer, 1960).
- State Rivers and Water Supply Commission: Fifty-Ninth Annual Report 1963-64, Parliamentary Paper (no.5), (Melbourne, 1964).
- State Rivers and Water Supply Commission, Fortieth Annual Report 1944-45, Parliamentary Paper (no.10), (Melbourne, Government Printer, 1945).

- State Rivers and Water Supply Commission, Forty-Fifth Annual Report 1949-50, Parliamentary Paper (no.31), (Melbourne, Government Printer, 1950).
- State Rivers and Water Supply Commission, Management of Irrigation Systems in Victoria Submission to the Public Bodies Review Committee, (Melbourne, SRWSC, 1981).
- State Rivers and Water Supply Commission, Sixtieth Annual Report 1964-65, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1965).
- State Rivers and Water Supply Commission, Sixty-Fifth Annual Report 1969-70, Parliamentary Paper (no.21), (Melbourne, Government Printer, 1970).
- State Rivers and Water Supply Commission, Sixty-Seventh Annual Report 1972-73, Parliamentary Paper (no.1), (Melbourne, Government Printer, 1974).
- State Rivers and Water Supply Commission, Tenth Annual Report 1914-15, Parliamentary Paper (no.42), (Melbourne, Government Printer, 1915).
- State Rivers and Water Supply Commission, Thirtieth Annual Report 1934-35, Parliamentary Paper (no.18), (Melbourne, Government Printer, 1935).
- State Rivers and Water Supply Commission, Twenty-Third Annual Report 1927-28, Parliamentary Paper (no.30), (Melbourne, Government Printer, 1928).
- The Board of Inquiry into the Victorian Public Service, Victoria, Final Report, Parliamentary Paper (no. 22), (Melbourne, Government Printer, 1976).
- Touche Ross Services, Victoria, Public Bodies Review Committee, Report on a Study of the Audit and Reporting Responsibilities of Public Bodies in Victoria – with particular reference to water, sewerage, drainage and river improvement trusts and authorities, (Melbourne, 1981).
- Parliamentary Public Works Committee, Victoria, The Melbourne Metropolitan Future Water Supply Inquiry (Final Report), (Melbourne, 1967).
- Parliamentary Public Works Committee, Victoria, The Melbourne Metropolitan Future Water Supply Inquiry (Progress Report No.1), (Melbourne, Government Printer, 1964).
- Parliamentary Public Works Committee, Victoria, The Melbourne Metropolitan Future Water Supply Inquiry (Progress Report No.2), (Melbourne, 1966).
- Victoria, Rodney Irrigation and Water Supply Trust. Regulation no.4, Parliamentary Paper (no.50), (Melbourne, Government Printer, 1891).
- Victorian Water Supply, Victoria, Third Annual General Report, Parliamentary Paper (no.135), (Melbourne, Government Printer, 1889).

Theses

- Hancock, Barry, Watershed or Water Shared? An Inquiry into the Politics of Rural Water Allocations in Victoria, (PhD diss., Swinburne University of Technology, 2010).
- Brent Collett, 'Changing rural water management: social and historical perspectives on the introduction of regional irrigation technologies', (PhD diss., University of Melbourne, 2010).
- Antony Lamb, Of Measures and Men The Victorian Country Party, 1917 to 1945, (PhD diss., Swinburne University of Technology, 2009).