

**Fishers Are Doing It For Themselves?**  
**Responsibilisation and the framing of fish habitat  
rehabilitation and stewardship**

**Kieran Benjamin Gregory**

Bachelor of Business (International Business) with Distinction

Submitted in fulfilment of the requirements of the degree of  
Master of Business (Research)

School of Management  
QUT Business School  
Queensland University of Technology  
2018

*Fishers are doin' it for themselves!  
Standin' on their own two feet,  
And ringin' on their own bells!  
Fishers are doin' it for themselves!*

# Keywords

Policy, policy problems, neoliberalism, neoliberal governance, governance theory, responsabilisation, fisheries management, interpretive policy analysis, resource management, public stewardship

# Abstract

Contemporary policymakers are required to respond to a range of challenges including diffuse environmental threats, the changes in practices that by necessity accompany the pivot to sustainable resource management, and the general encroachment of neoliberal thought on policymaking. From a policymaking perspective, the challenge lies in determining how best to deploy increasingly limited public resources in the most effective manner in order to respond to the most complex environmental governance issues of our times.

The ascendancy of neoliberal thought has influenced both how government policy is crafted and how government resources are deployed to support implementation. This has led to both the problems and solutions of environmental governance being framed in a particular manner, with an ever-growing list of non-state actors—individual citizens, community groups, NGOs, and business interests—enlisted to advance environmental agendas. This positioning of the actions of non-state actors as a panacea to solving environmental policy challenges is a sufficiently significant shift of responsibility from the state to be worthy of academic attention.

The aim of this research is to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy. By doing so, this research identifies the discursive strategies used to attribute blame for fish habitat degradation, and whether there is a dissonance between to whom blame is attributed and the stakeholder groups which the New South Wales Department of Primary Industries (NSW DPI)—the state government agency with policy responsibility for fisheries management—is advocating take responsibility for remedying the problem.

The theory of responsabilisation lies at the heart of this thesis, as the practical link connecting ideal-typical schemes of governance to the practices of policymakers on the ground. Responsibilisation refers to the expectation and assumption of the reflexive moral capacities of social actors. Conceptually responsabilisation can be used to explain how neoliberal policy programs are underpinned by a desire to create congruence between economic rationality and moral responsibility. As a technique of governance, it is premised on the construction of moral agency as a necessary precondition for ensuring an entrepreneurial, self-sufficient citizenry. Responsibilisation is a useful theory to explore why policymakers are seeking to mobilise non-state actors to accept responsibility for problems which have been previously seen as the state's

role to fix. Indeed, why non-state actors are being mobilised to accept responsibility for fixing problems not entirely of their own making is an issue worthy on academic interrogation.

Drawing on Dvora Yanow's approach to interpretive policy analysis this thesis considers how the degradation of fish habitats in NSW is framed in stewardship policy, how the solutions to this degradation are constructed in stewardship policy, and which stakeholders are attributed with responsibility for enacting these solutions. Forty artifacts either explicitly or implicitly authored by the NSW DPI, which were primarily targeted at recreational fishers, were selected for analysis. In doing so this research uncovers a tension in the analysed artifacts between the attribution of blame (or absence thereof) for the degradation of fish habitats and attempts to mobilise recreational fishers to take responsibility for the solution through engaging in voluntary rehabilitation actions.

By connecting theories relating to neoliberalism, responsabilisation, voluntarism, and governance to understand the discursive strategies used by governments to mobilise stakeholders to become involved in stewardship activities, in this case, this research advances the current body of knowledge relating to fisheries management. While the traditional regulatory toolbox used to manage recreational fisheries is diverse, this research has identified that policymakers are increasingly relying on what are arguably less coercive mechanisms to achieve environmental objectives. This research considers the ramifications of positioning recreational fishers to take responsibility for rehabilitating degraded fish habitats, an issue for which they are not the primary cause. Whilst the resourcing pressures which policymakers are dealing with need to be recognised, it could be suggested that recreational fishers are being expected to shoulder a disproportionate stewardship burden. Whilst this burden is framed in terms of civic responsibility, it is ultimately a manifestation of responsabilisation.

## Table of Contents

<b>Keywords</b> .....	<b>iii</b>
<b>Abstract</b> .....	<b>iv</b>
<b>List of Figures</b> .....	<b>viii</b>
<b>List of Tables</b> .....	<b>viii</b>
<b>List of Images</b> .....	<b>viii</b>
<b>List of Abbreviations</b> .....	<b>ix</b>
<b>Statement of Original Authorship</b> .....	<b>x</b>
<b>Acknowledgements</b> .....	<b>xi</b>
<b>Chapter One – Introduction</b> .....	<b>1</b>
1.1 Developing public policy .....	2
1.2 Facilitating fisheries stewardship.....	3
1.3 Addressing the research agenda.....	5
1.4 Thesis outline .....	6
<b>Chapter Two – Literature Review</b> .....	<b>8</b>
2.1 Introduction .....	8
2.2 The movement towards public stewardship of natural capital .....	8
2.3 Public participation in government decision-making .....	12
2.4 Stewardship and participatory governance in fisheries.....	15
2.5 Understanding stewardship through neoliberalism, governance, voluntarism, and responsibilisation .....	18
2.5.1 Neoliberalism and environmental management .....	18
2.5.2 Governance .....	22
2.5.3 Voluntarism.....	24
2.5.4 Responsibilisation .....	27
2.7 Conclusion .....	29
<b>Chapter Three – Research Methodology</b> .....	<b>31</b>
3.1 Research aim and questions.....	31
3.2 Philosophical perspective underpinning this research .....	32
3.3 A single case study approach.....	34
3.4 The adoption of interpretive policy analysis to address the research problem .....	36
3.5 Framing, naming and blaming .....	40
3.6 Analysis of artifacts as carriers of meaning .....	42
3.7 Verification and ethics waiver .....	44
3.8 Conclusion .....	44
<b>Chapter Four – Framing the Problem of Fish Habitat Degradation</b> .....	<b>46</b>
4.1 Introduction .....	46
4.2 The regulation of the fishery in NSW .....	46
4.2.1 The NSW Marine Parks Fisher Rebellion.....	50
4.2.2 Regulation of recreational fishing today .....	52
4.3 Constructing fish habitat degradation as a policy problem.....	55
4.4 Identifying communities of meaning in fish habitat policy .....	57
4.5 Identifying the threats to fish habitat .....	59
4.5.1 What about recreational fishers? .....	67
4.6 Conclusion .....	68
<b>Chapter Five – Framing the Solutions to Fish Habitat Degradation</b> .....	<b>71</b>

<b>5.0</b>	<b>Introduction .....</b>	<b>71</b>
<b>5.1</b>	<b>The construction of solutions for rehabilitating fish habitats.....</b>	<b>72</b>
5.1.1	A failure to effectively educate and communicate? .....	80
<b>5.2</b>	<b>Underlying themes of the solution to fish habitat degradation .....</b>	<b>85</b>
5.2.1	Voluntarism.....	85
5.2.2	Fostering collaborative behaviours between recreational fishers and state actors .....	88
5.2.3	Constructing a sense of citizenship .....	89
<b>5.3</b>	<b>Shifting responsibility for fisheries habitat management to recreational fishers .....</b>	<b>92</b>
<b>5.4</b>	<b>Conclusion .....</b>	<b>94</b>
<b>Chapter Six – Fishers Are Doing It For Themselves? .....</b>		<b>97</b>
<b>6.0</b>	<b>Introduction .....</b>	<b>97</b>
<b>6.1</b>	<b>Key findings of this research .....</b>	<b>98</b>
<b>6.2</b>	<b>Research contribution .....</b>	<b>101</b>
<b>6.3</b>	<b>Limitations of current project and guidance for future research .....</b>	<b>103</b>
<b>6.4</b>	<b>Conclusion and broader implications .....</b>	<b>104</b>
<b>References.....</b>		<b>107</b>
<b>Appendix One: Texts selected for analysis .....</b>		<b>A</b>
<b>Appendix Two: Ethics Waiver.....</b>		<b>D</b>

# List of Figures

Figure 1:	Arnstein’s Ladder of Citizen Participation
Figure 2:	IAP2 Public Participation Spectrum
Figure 3:	Current structure of the NSW Department of Industry
Figure 4:	Communities of meaning to the issue of fish habitat degradation
Figure 5:	Threats to fish habitat
Figure 6:	Causes of fish kills as attributed by the NSW DPI
Figure 7:	Identified rehabilitation approaches and attributed responsibility
Figure 8:	Elements of challenge of increasing participatory stewardship behaviours in recreational fishers

# List of Tables

Table 1:	Steps in Interpretive Policy Analysis
----------	---------------------------------------

# List of Images

Image 1:	Scouring of seagrass beds by boat moorings at Lake Macquarie
Image 2:	Infographic linking improved flows to benefits for fish
Image 3:	Second infographic linking improved flows to benefits for fish
Image 4:	Steve ‘Starlo’ Starling, Fishing writer and presenter
Image 5:	Kevin discussing his passion for fish and the river
Image 6:	Fallen large trees create snags in river
Image 7:	Child fishing
Image 8:	Here’s 5 easy ways to get you started
Image 9:	Get Hooked: It’s Fun to Fish!



# List of Abbreviations

IAP2	International Association for Public Participation
NRSMPA	National Representative System of Marine Protected Areas
NSW	New South Wales
NSW DPI	New South Wales Department of Primary Industries
NSW DPI Fisheries	New South Wales Department of Primary Industries Fisheries
UK	United Kingdom
US	United States of America

# Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: QUT Verified Signature

Date: November 2018

# Acknowledgements

~ *'Complete standstill. Unending torments'* ~

Franz Kafka, 1915

There is an old Chinese curse which broadly translates into English as 'May you live in interesting times.' The times in which this thesis was conceived and completed... well, they certainly have been interesting.

There were several points along this journey where I felt completely at sea, with nary an owl or pussycat, or even a pea-green boat in sight. I would like to acknowledge the continued guidance and support provided by my supervisors, Dr Carol Richards and Dr Deanna Grant-Smith, who together ensured I always returned to shore. Thank you both for being an inspiration to me, and for putting up with what at times was an output that can only be described as 'non-existent.' Deanna in particular, you have been a godsend. Life has had a way of getting in the way of this piece of work, and I feel incredibly fortunate to have been mentored by two brilliant, fabulous women who have stuck with me. I will be eternally grateful and look forward to collaborating with you both in the future (assuming you'll have me...).

I am also thankful for my incredible support network. Steven, Simone, Natalie, Sally, Kellie, Laura, Louise, Clare, Jenn and Nicholas – your friendship means the world to me. Thank you for lending me an ear and a glass of gin or wine when it was needed most. To Jess and Kylie – this would not have been completed without your flexibility and understanding. Most of all, thank you Jack – your humour and misguided advocacy of #wishesforfishes as the title of this work kept me smiling in the darkest of times.

This thesis is dedicated to my five-year old twin nephews, Varro and Thorn. I understand and begrudgingly accept that you are currently more obsessed with Optimus Prime than the contemporary challenges of fisheries management. Here's hoping one day soon you'll be as passionate as I am about making sense of the world around us.

*Note: The title of this thesis an adaptation of the classic Eurythmics and Aretha Franklin collaboration "Sisters Are Doing It For Themselves."*

*Trouble and strife can cover this world like the dark of night,  
or like smoke from a suspicious fire.  
And when that happens, all good, true, and decent people know  
that it's time to volunteer*

Lemony Snicket

# Chapter One – Introduction

Contemporary policymakers within the natural resource management sphere face significant competing pressures. One of the more profound challenges in environmental governance is responding to the myriad diffuse threats to ecosystems, in order to ensure their ongoing social and economic utility, and ecological sustainability. Positively, there is increasing acknowledgement and focus on the imperative of inter-generational equity and sustainable natural resource management (Gunningham, 2009). Governments are increasingly seeking to do more with less however, through the adoption of low-cost, high quality, effective policy solutions, and the transfer of responsibility to an increasingly diverse array of non-state actors (Jensen & Estevez, 2013; Shamir, 2008). The need to balance these competing pressures is further complicated by the need to effectively manage conflicting stakeholder interests (Reed et al., 2009).

The core challenge for government lies in determining how best to deploy increasingly limited public resources in the most effective manner to respond to these policy challenges. The ascendancy of neoliberal thought and its associated influence on how government policy is crafted, and how government resources are deployed to support policy implementation, has led to both the problems and solutions of environmental governance being framed in a particular way. An ever-growing list of non-state actors—individual citizens, community groups, as well as other non-government and business entities—have been enlisted to advance environmental agendas. This positioning of the actions of non-state actors as almost a panacea to solving environmental policy challenges is a sufficiently significant shift of responsibility from the state to be worthy of academic attention. Governments are increasingly seeking to economise methods of governments (Shamir, 2008), and as this shift in responsibility for the delivery of tasks previously within the purview of the state continues, there is merit in taking stock of the potential consequences of this. This research also highlights the strategies used to mobilise non-state actors in voluntary stewardship activities and the implications of this.

This chapter provides a context for public policy development before exploring the role of public policy in facilitating fisheries stewardship. This chapter then outlines the research agenda, before providing the theoretical and practical justification for the research. The chapter concludes by outlining the structure of the thesis.

## 1.1 Developing public policy

Policymaking is an instrument of governance and can arguably be viewed as the end product of a social process of definition, negotiation, legitimation, and sensemaking (Hannigan, 2006). As an end product, policies are ‘the outcome of the competition between ideas, interests and ideologies that impels our political system’ (Althaus, Bridgman & Davis, 2012: 5). Policymaking is not a rational process, rather policies are performative, productive and contested (Van Lieshout et al., 2017). Public policy rests on behavioural assumptions about relevant actors, and can be viewed as a functional device utilised by policymakers to achieve specific objectives (Van Herzele & Aarts, 2013).

Recent experience would suggest that policies pushed onto stakeholder groups without appropriate consultation face challenges in achieving their stated objectives (Rockmann et al., 2017). For example, in New South Wales (NSW), the Australian state on which the case study underpinning this research rests, one of the key critiques of the enactment of marine parks legislation and subsequent policies by the then Labor government<sup>1</sup> was that it relied too heavily on technocratic, scientific processes, and that it failed to adequately take into account the experiences of regular users of areas that were designated marine parks (Voyer, Gladstone & Goodall, 2014). The support of stakeholders may have been easier to foster had their experiential knowledge been factored into the policy development process (Rockmann et al., 2017). Indeed, it has been suggested that the failure to adequately involve these stakeholders was one of the factors leading to the overthrow of the Labor government in 2011 (Voyer, Gladstone & Goodall, 2014).

This particular example also illustrates that technocratic approaches to policymaking can struggle to compete with the emotive approach taken by dissenters, and to address subconscious psychological needs and values (Grant-Smith, 2011; Grant-Smith & Osborne, 2015). It is seen to be increasingly important for those who craft policy to demonstrate they value the experiential knowledge that users of environments bring to the table. In pursuit of this, and in order to address key complex environmental challenges, including the degradation of fisheries, policymakers have sought to deploy a broader suite of policy instruments beyond the traditional regulatory toolbox.

---

<sup>1</sup> Labor was in power in NSW between 1995 – 2011 (NSW Labor, 2018)

## 1.2 Facilitating fisheries stewardship

Climate change, overexploitation of resources, habitat destruction and pollution have contributed to the degradation of the world's fisheries (Granek et al., 2008; Al Mamum, 2015). In order to prevent further degradation, and ameliorate the damage already done, governments have sought to rely on a range of regulatory measures in order to ensure the ongoing social and economic utility of fisheries, and to balance the competing priorities of resource use and preservation (Al Mamum, 2015; Young, Foale & Bellwood, 2016). Examples of this include legislation that limits the number and size of fish that fishers are able to catch, when and where fishers are able to access particular environments, and the technology and gear that fishers are able to use (Cook et al., 2013). Governments are increasingly moving away from wholly relying on compliance with legislative and regulatory mechanisms in order to achieve environmental policy aims. Instead, there is a trend towards deploying policy instruments to foster participatory behaviours amongst key stakeholder groups in order to deliver environmental governance solutions. In the fisheries arena, this includes targeting recreational fishers (Copeland, 2012).

Fisheries managers in jurisdictions such as the United States (US) and United Kingdom (UK) are focusing on mobilising stakeholder groups, such as recreational fishers, to become more involved in fisheries stewardship activities (Copeland, 2012). Within the context of this research, stewardship is defined as 'the responsible use (including conservation) of natural resources in a way that takes a full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society' (Worrell & Appleby, 2000: 263).

Evidence suggests that fisheries managers within Australia are keen to replicate the international experience of increased public involvement in fisheries stewardship activities, and view recreational fishers as a key stakeholder group to mobilise to rehabilitate degraded fish habitats (Copeland, 2012; Miles, Baker & Copeland, 2014). There is also support in the academic literature for recreational fishers to take on the role of advocates who positively influence and contribute to habitat rehabilitation efforts (Granek et al., 2008; Al Mamun, 2015; Sawchuk et al., 2015). As primary users of fish habitats, recreational fishers arguably have a vested interest in the ongoing sustainability of the habitats on which their leisure activity depends (Granek et al., 2008; Sawchuk, 2015). Collectively, recreational fishers have a powerful voice, and mobilising even a portion of recreational fishers could potentially deliver

significant gains to the quality of fish habitats. However, in the Australian context, this potential has been largely unrealised.

Evidence suggests that Australian recreational fishers are less likely than their US and UK counterparts to become involved in stewardship activities (Copeland, 2012). In the UK for example, 20 per cent of fishers volunteer their time to conservation activities, whilst in the US there is strong agreement within the recreational fishing community as to the benefits of their participation in environmental works (Copeland, 2012; Miles, Baker & Copeland, 2014). The comparative lack of participation by Australia fishers in stewardship activities occurs despite the enactment of strategies at the federal and state level expressly targeted at mobilising recreational fishers (Recreational Fishing Advisory Committee, 2011; Copeland, 2012). The widespread support amongst recreational fishers in the US and UK for investment in restorative habitat programs is thought to be based on the recreational fishers' perceptions of the value of the fish habitat to their fishing experience (Arlinghaus, 2006). Australian policymakers are seeking to replicate this support, and believe the way to achieve this is to draw links between the quality of fish habitat and the quality of the recreational fishing experience (Copeland, 2012; Miles, Baker & Copeland, 2014).

One of the hallmarks of neoliberalism has been a move by state actors to rely on non-state actors to perform tasks traditionally carried out by the state (Shamir, 2008). This move has extended to the realm of natural resource management and has manifested itself through the actions of fisheries managers seeking to integrate recreational fishers into solutions to some of the most pressing environmental challenges. A desire by policymakers to mobilise recreational fishers and increase their involvement in participatory stewardship activities can be analysed through the concept of responsabilisation. Responsibilisation refers to the expectation and assumption of the reflexive moral capacities of social actors (Shamir, 2008). The remote and indirect actions of the state are enabled by the establishment of a form of self-hood, whereby the agent (here, recreational fishers) produces the ends of government themselves, allowing the state to govern at a distance (Pyysiäinen, Halpin & Guilfoyle, 2017). Authority and rule are exercised by individuals acting upon themselves, rather than giving way to some externally enforced agent, such as the state (Pyysiäinen, Halpin & Guilfoyle, 2017). Responsibilisation is a core concept which informs the research agenda, a topic to which this chapter now turns.



### **1.3 Addressing the research agenda**

Using a case study based on fisheries policy in the Australian state of NSW, the aim of this research is to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy. By doing so, this research identifies the discursive strategies used to attribute causal responsibility, or blame, for fish habitat degradation, and whether there is a dissonance between to whom blame is attributed and those the New South Wales Department of Primary Industries (NSW DPI)—the state government agency with policy responsibility for fisheries management—advocates take responsibility for remedying the problem. The attribution of blame for habitat degradation by the NSW DPI is implicitly embedded in narratives within the selected texts. The research aim is addressed through three research questions:

1. How is the degradation of NSW fish habitats framed in stewardship policy?
2. How are solutions to the degradation of NSW fish habitats constructed in stewardship policy?
3. Which stakeholders are attributed with responsibility for enacting these solutions?

This research is concerned with sensemaking – how policy actors come to frame and problematise policy issues, and how they seek mobilise non-state actors to deliver proposed solutions on their behalf. As such, a social constructionist philosophical perspective (Andrews, 2012) and qualitative research methodology were adopted. As a critical case (Flyvbjerg, 2006) this research focuses on a single case study to understand how the NSW DPI frames the degradation of NSW fish habitats in stewardship policy, how the solutions to the degradation of fish habitats are constructed in stewardship policy, and which stakeholders are attributed with responsibility for enacting these solutions. Aligning with the selected philosophical perspective and research agenda, a range of texts were selected (see Appendix One) and Yanow's (2000) approach to interpretive policy analysis was used to understand how the NSW DPI frames habitat degradation, how solutions to the degradation are constructed, and which stakeholders groups are attributed with responsibility for enacting the articulated policy solutions. This research seeks to complement and extend the existing focus in the literature on responsabilisation by making visible the communicative artifacts of responsabilisation authored by the NSW DPI, the primary target audience of which appears to be recreational fishers.

This research advances the body of knowledge relating to fisheries management and responsabilisation in two key ways. First, connections between neoliberalism, governance, responsabilisation and environmental policy remain under-explored in critical scholarship

(McCarthy & Prudham, 2004). This research connects disparate theories relating to neoliberalism, responsabilisation, voluntarism, and governance, and in doing so this research highlights the discursive strategies used by the NSW DPI to frame options for problems and solutions when mobilising stakeholders to become involved in stewardship activities.

Second, although an interdisciplinary body of scholarship has explored the neoliberalisation of nature (Mansfield, 2004; Bridge, 2004), whereby environmental problems are solved through market mechanisms and public-private partnerships (Ciplet & Roberts, 2017), the associated rescaling of environmental responsibility to the individual has received less attention. As a subset of environmental governance, fisheries management provides an empirical site through which to study these issues. Further, although increasing academic attention is being paid to the role recreational fishers may play in delivering on solutions to stop the degradation of fish habitats, little has considered the discursive strategies used by policymakers to responsabilise recreational fishers. This research explores in a new context the theories of neoliberalism, governance, voluntarism, and responsabilisation as it relates to NSW fisheries policy.

Fisheries management has historically tended to rely on ad-hoc, reactive approaches to policy development and enactment, details of which are outlined in Chapter Four. On occasion, these approaches have sometimes failed to produce desired behavioural changes, which may be attributed to the objectives, possible actions and resulting outcomes being treated as simple and known (Irwin et al., 2011). Whilst the traditional regulatory toolbox used to manage recreational fisheries is diverse, it is apparent that policymakers see an opportunity to deploy new mechanisms in order to achieve compliance and environmental objectives, relying heavily on voluntarism (Cooke et al., 2013). Given the challenges associated with engaging an increasing array of stakeholders, large-scale environmental changes, and persistent pressures on budgets, there is an argument that harnessing the perceived untapped potential of recreational fishers is more critical than ever (Irwin et al., 2013). This thesis unpacks these ideas and explores their practical application in the real world, whilst questioning whether recreational fishers are being asked to disproportionately shoulder responsibility for enacting policy solutions.

## **1.4 Thesis outline**

Following this introductory chapter, this thesis is broken down into a further five chapters. Chapter Two provides a review of the literature which is key to understanding this research. This chapter draws on relevant theoretical concepts which can be used to understand how the

NSW DPI frames the degradation of NSW fish habitats in stewardship policy, how the solutions to the degradation of fish habitats are constructed in stewardship policy, and which stakeholders are attributed with responsibility for enacting these solutions. This chapter first discusses the embrace of public stewardship of natural capital more broadly, and then in fisheries management specifically. Mechanisms of participatory governance are discussed, with an overview of recent trends. The literature review then seeks to understand stewardship through a number of synthesised concepts, including neoliberalism, governance, voluntarism, and responsabilisation. The chapter argues that the reliance on volunteers to perform self-governing tasks for the greater good, can be considered as symptomatic of an ascendant neoliberal ideology.

Chapter Three discusses the methodological decisions made during the course of conducting the research. This chapter commences with an overview of the social constructionist perspective which underpins this research, a perspective which aligns with the qualitative method of inquiry undertaken in order to address the research agenda. The chapter moves on to justifying the single case study approach, and process undertaken to select the case study and key documents for analysis. A justification for the selection of interpretive policy analysis, which was selected as the methodological approach follows. This chapter moves on to a discussion of the structuring devices of framing, blaming and naming, which have been used to analyse constructed policy issues and solutions.

Chapter Four is the first of the two findings chapters and provides an outline of how the policy issue of fish habitat degradation is framed by the NSW DPI in stewardship policy. Chapter Five provides a discussion around how the NSW DPI constructs proposed solutions to the problem as outlined in Chapter Four, and to which stakeholder responsibility is attributed for enacting the solutions. Chapter Five identifies the themes of construction of a sense of citizenship, voluntarism, and responsabilisation, as well as discursive strategies used by the NSW DPI to foster participatory behaviours in non-state actors. Finally, Chapter Six provides a discussion of the findings of this research, highlighting the research contribution at both a theoretical and practical level. The limitations of the research and proposed future directions are also discussed.

# Chapter Two – Literature Review

## 2.1 Introduction

Policymakers in the environmental governance arena have been confronted with significant challenges in recent decades, the not least of which is ensuring the sustainability of marine ecosystems (Kalfagianni & Pattberg, 2013). The ascendancy of neoliberal thought and its influence on both how government policy is crafted and to what extent government resources are deployed to respond to a policy issue has resulted in the problems and solutions of environmental governance being framed in a particular way. Increasingly, governments are looking to non-state actors to fulfil policy outcomes on their behalf. For some environmental governance issues, non-state actors—whether they be individuals, community groups, non-government organisations or businesses—are seen as playing a critical role in the delivery of proposed policy solutions, with governments looking to these actors to discharge their responsibilities of natural resource management (Castree, 2008). The shift is significant enough that it is worthy of academic attention.

This chapter draws on concepts which can be used to explain the shift to mobilise non-state actors to increase their participation in activities have been traditionally considered the responsibility of the state. This literature review commences by exploring the trend in natural resource management more broadly, and fisheries management specifically, towards participatory governance mechanisms, and engendering the public stewardship of natural capital. This trend is then explained by exploring the relevant concepts of neoliberalism, governance, voluntarism, and responsabilisation. In doing so, the current body of knowledge is brought to the fore to explain the push by the NSW DPI to mobilise non-state actors to undertake stewardship activities. An understanding of this is central to understanding contemporary trends in public administration more broadly, and to assist in answering the research questions which are central to this thesis.

## 2.2 The movement towards public stewardship of natural capital

This research has adopted the definition of habitat as provided for in the *Fisheries Management Act 1994* (NSW, s.4) as ‘any area occupied, or periodically or occasionally occupied, by fish or marine vegetation (or both) and includes any biotic or abiotic component’. This includes ‘the water column, the substrate (such as sand, mud, cobbles or reef) and other features submerged by water which are used by fish to shelter, access food... to breed and which

provide the territorial markers for migration' (NSW DPI, 2013a: 5). Stewardship is 'the responsible use (including conservation) of natural resources in a way that takes a full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society' (Worrell & Appleby, 2000: 263). Essentially stewardship can, therefore, be understood as the 'careful management of the property and/or affairs of others' (Lawrence, Richards & Cheshire, 2004).

Central to the concept of stewardship is the idea of looking after something 'in trust' for someone else, be that nature, society or future generations (Worrell & Appleby, 2000). Engendering high levels of stewardship amongst users of natural resources is viewed as an important policy outcome, in part because it fosters support for rehabilitation and conservation measures, even when these place restrictions on the use of or access to these resources (Granek et al., 2008). Statutes and regulations prescribing unconditional environmental standards, with punitive consequences are considered to be key components of the traditional regulatory toolbox, and can form part of the regulatory mix deployed by policymakers (Lam, 2012; Preston, 2012). The trend thus far, however, has been for policymakers to adopt an approach which actively constructs and deploys notions of stewardship in an effort to generate public good conservation outcomes, rather than solely relying on statutory obligations (Cooke & Moon, 2015). This trend can be partly explained by a reconfiguration of the societal role played by both state and non-state actors.

There has been a considerable restructuring of the institutional arrangements governing natural resource management over the last several decades, which is most apparent through the emergence of the region as a scale of governance for the delivery of public policy (Gibbs & Jonas, 2001; Lockwood et al., 2009). The rise in interest in regional planning came to be termed 'new regionalism', with regional planning strategies seen as central to addressing environmental governance challenges (Wheeler, 2002). Whilst the term has been used to describe past eras of regionalism (Hettne, 2006), within the context of this paper it is used to refer to the era which commenced in the early 1990s. This era arose in part due to the environmental and social problems resulting from past regional development, and led to a renewed focus on environmental and equity goals, regionalised planning processes, and flexible governance methods with many actors and several interacting levels of society (Wheeler, 2002; Hettne, 2006; Bevir, 2008). Studies have shown the regional scale of governance is perceived by a diverse range of stakeholders to be the preferred model for enacting natural resource management policies (Robins & Kanowski, 2011). This restructuring has taken place in the context of ongoing efforts at economic reform, as well during a period

of an embrace of neoliberal thought by governments of all stripes (Meynen & Doombos, 2004). Governments are facing the dual pressures of resolving urgent environmental and social policy issues, whilst at the same time balancing demands to reduce expenditure (Howes et al., 2015). This has occurred (and indeed is occurring) in jurisdictions including Australia, the US, the European Union and elsewhere (Cocklin, Dibden & Mautner, 2006).

The type of bureaucracy as advocated by Weber (2009) at the start of the twentieth century, with clearly defined areas of responsibility and the breakdown of problems into smaller, manageable tasks appears to no longer be fit for purpose. There is an argument that Weber's construction of bureaucracy struggles to adequately address policy issues which cut across jurisdictions, are difficult to define and require a blend of expertise (Howes et al., 2015). Increasing attention is now being paid to the local, regional and global scales of interaction, as opposed to solely focusing on the national (Mansfield, 2005). Policy interventions by the state, initiatives of voluntary local and regional groups, and the commodification of the environment are broadly symptomatic of this shift (Meynen & Doombos, 2004). The changes have amounted to a redefinition of the role of the state, and prompted experimentation with forms of management at a regional level, including by local government and non-state actors (Meynen & Doombos, 2004). Examples of this can be seen in many of the natural resource management programs enacted in Australia that rely heavily on volunteers.

Since 1983, Australian Governments have approved a number of programs with carriage of natural resource management at a regional level. These programs include the *National Soil Conservation Program*, *National Landcare Program*, *National Heritage Trust*, *National Action Plan for Salinity and Water Quality*, and *Caring for Our Country* (Lockwood & Davidson, 2009; Wilson, 2004; Robins & Kanowski, 2011). These programs focused on soliciting participation from communities, with funding devolved to regional community groups via a grants system (Curtis, 1998). Whilst the early focus of such programs was on raising awareness and changing attitudes, this shifted over time to building capacity of the actors involved, and using market-based instruments to try and deliver environmental outcomes (Hajkowicz, 2009; Cooke & Moon, 2015). The hallmark of these programs is their heavy reliance on volunteers to deliver environmental outcomes, underpinned by support from the state (Carter & Ross, 2012).

Landcare has been cited as a successful example of a multi-stakeholder partnership which both raised awareness of rural degradation issues, and which resulted in increased collaboration between state and non-state actors on land management issues (Curtis, 1998; Wilson, 2004). Landcare 'mobilised a large cross section of the rural population' to become involved in

participatory natural resource management activities, and at its peak had 120 000 members (or up to 30 per cent of the rural community), all of whom were unpaid volunteers (Byron & Curtis, 2002: 59). Critics of natural resource management policy instruments such as Landcare have argued that simply engendering attitude change and constructing social networks is insufficient to deliver improved natural resource conditions and ameliorate much of the degradation which Australia's natural capital has suffered (Hajkowicz, 2009). Curtis et al. (2014) argue that the assumption local ownership of problems would sufficiently mobilise communities, and that Australia's natural resource problems could thus be managed affordably was somewhat naïve. In spite of many of the successful outcomes Landcare delivered, issues of salinity, water pollution, soil erosion, loss of biodiversity and rural decline have continued (Hajkowicz, 2009). Further, research conducted with landholders in Victoria has suggested that simply having the right attitude towards environmental management does not automatically equate to a better stewardship ethic, behaviours or actions (Curtis & De Lacy, 1996; Cocklin, Dibden & Mautner, 2006). One evaluator of the *National Landcare Program* commented:

While many landowners may be aware and committed to sustainable natural resource management practices, they may not have the financial resources to adopt these, even though they know that not adopting them may be to their own peril in the future (Dames and Moore, 1999: 73).

Interviews undertaken with landholders corroborated this view, with a common theme being 'it's hard to be green when you're in the red' (Cocklin, Dibden & Mautner, 2006: 200). Statements such as this understate the complexity of the issue, and accepting this statement as a truth potentially sanctions a passive approach to environmental management whilst stakeholders are waiting for the terms of trade to improve (Richards, Lawrence & Kelly, 2005). The view that the road to environmental sustainability can only be embarked upon once economic viability has been secured is arguable at best, and does not recognise the potential influence of other social factors in the uptake of environmentally friendly behaviours, such as cultures of practice (Richards, Lawrence & Kelly, 2005).

Landcare has also been critiqued due to the industrial, productivist interests that were conflated with its environmental objectives (Curtis, 1998; Wilson, 2004; Curtis et al., 2014). However, its success led to a socially engineered change, with communities becoming more amenable to volunteering in order to deliver tangible, positive environmental outcomes for local natural capital (Martin, 2012). This shift in social attitudes was a factor which enabled natural resource policymakers to explore alternative policy instruments to regulatory and legislative mechanisms in order to achieve their environmental objectives. Another was the

trend towards a more participatory style of government, a trend which this chapter will now consider.

### **2.3 Public participation in government decision-making**

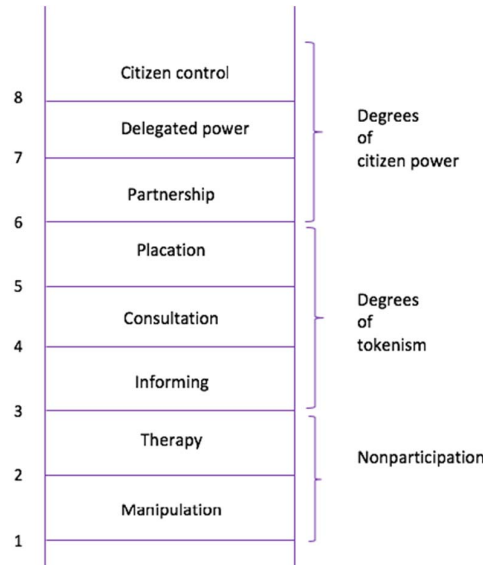
There is a significant body of political theory advocating for an increasingly participatory style of government – one in which the citizenry has the opportunity to have meaningful input into decisions that will impact them (Lobel, 2004; Cameron & Grant-Smith, 2014). This has coincided with a shift in perceptions of the public as being a homogenous group to being perceived as diverse and heterogeneous (Cameron & Grant-Smith, 2005). A more participatory approach has also been linked to a growing acceptance that many of the key challenges facing society today – particularly complex social and environmental issues – may be best resolved by sharing responsibility with, and with the input of the stakeholders who are directly impacted by them (Head, 2007; Lawrence, Richards & Cheshire, 2004; Grant-Smith & Edwards, 2011; Serrao-Neumann et al., 2015).

Terminology used to describe the policies and procedures associated with participatory forms of governance include community engagement (Head, 2007), stakeholder engagement (Greenwood, 2007), citizen participation (Arnstein, 1969), public participation (Rowe & Frewer, 2005; Serrao-Neumann et al., 2015), and public consultation (Rowe & Frewer, 2005). While all are used in various guises to describe citizen involvement in the functions of government, they remain contested and ill-defined, resulting in disagreements around the scope of the activities captured by each term and the differences between them (Rowe & Frewer, 2005). This lack of shared understanding can create challenges for those trying to mobilise non-state actors, and can result in unrealised expectations (Serrao-Neumann et al., 2015). For this thesis, the concept of public participation refers to ‘episodic relationships between civil society and government authorities’; this is contrasted with public engagement, in which relationships are ‘ongoing and active’ (Serrao-Neumann et al., 2015: 1196).

Arnstein’s Ladder of Citizen Participation has formed the basis of many methodologies guiding public participation initiatives (Rowe & Frewer, 2005; Lane, 2005; Head, 2011; Serrao-Neumann et al., 2015). As identified in Figure 1, Arnstein (1969) posited eight rungs on the participatory ladder, ranging from manipulation to citizen control. Arnstein’s approach to citizen participation in planning programs remains relevant today, particularly when considering the associated redistribution of delegated authority (and by extension power), which accompanies meaningful citizen participation at the highest rungs of the ladder (Arnstein, 1969; Lane, 2005). The image of the ladder was subsequently appropriated and



elaborated upon in other classifications of public participation (Ross, Buchy & Proctor, 2002). Whilst this model juxtaposes powerless citizens with the powerful in order to highlight the fundamental divisions between them in what is a rather blunt typology (as many typologies are), in reality, some of the characteristics Arnstein used to illustrate each rung may also be applicable to other rungs on the ladder.



**Figure 1:** Arnstein's Ladder of Citizen Participation (Arnstein, 1969: 217)

Head (2011) notes that a ladder-like approach assumes participatory public decision-making will naturally progress through each level, which is not realistic in situations where governments either cannot or will not delegate power, alongside responsibility, to citizens. Indeed the use of the ladder as a typology has been critiqued more broadly in the literature as over-simplifying the types of government-community partnerships that are now commonplace in natural resource management (Ross, Buchy & Proctor, 2002). Another issue with using a ladder is that this model is predicated on the assumption the highest rungs of the ladder are preferable, whereas others are by necessity deficient (Bishop & Davis, 2002). As a typology, the ladder is simply not sophisticated enough to capture the complexity of public participation. Adopting a matrix-based typology can help to avoid some of the aforementioned issues and recognise the complexity inherent in involving the community in decision making.

The search for a mechanism to practically guide and evaluate public participation processes led to the creation of other typologies, including the IAP2 Public Participation Spectrum depicted in Figure 2. The IAP2 Public Participation Spectrum has been embraced by academics and practitioners, particularly in the resource management space, to help groups define the public's role in any public participation process (IAP2 International Foundation,

2014; Jurin, Roush & Danter, 2010). The spectrum is more contextual and situational than Arnstein’s participatory ladder, and identifies five types of engagement activity, ranging from the simple provision of information through inform, carrying on to increased levels of participation through consult and involve, to genuine partnerships and high levels of stakeholder participation in planning, decision making and implementation in collaborate and empower (IAP2 International Foundation, 2014; Hames et al., 2014). Critically this spectrum can be viewed as a participatory buffet from which appropriate participatory strategies can be selected based on levels of risk and the complexity of the issues at hand (Department of Environment & Conservation, 2006; Cameron & Grant-Smith, 2014). It should be noted that models of this nature focus on the degree of decision-making vested in the hands of the targeted participants, and tend not to examine either the impact of a selected activity nor the roles undertaken by stakeholders.

INCREASING IMPACT ON THE DECISION					
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
<b>Public Participation Goal</b>	To provide the public with balanced and objective information to assist them in understanding the problems, alternatives, opportunities and/or solutions	To obtain public feedback on analysis, alternatives and/or decisions	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution	To place final decision making in the hands of the public
<b>Promise to the Public</b>	<i>We will keep you informed</i>	<i>We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision</i>	<i>We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision</i>	<i>We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible</i>	<i>We will implement what you decide</i>

**Figure 2:** IAP2 Public Participation Spectrum (IAP2 International Foundation, 2014: 1)

There are competing views within the literature regarding the efficacy of models of public participation in delivering on policy objectives, including in terms of their environmental impact. Participatory forms of governance have historically been difficult to criticise, and are akin to motherhood statements; as Arnstein (1969: 216) points out, ‘the idea of citizen participation is a little like eating spinach: no one is against it in principle as it is good for you.’ Consequently it has evaded critical analysis for some time, given the presumption it is inherently good (Summerville & Adkins, 2008). Advocates of increasing levels of public participation argue citizens should have the right to contribute to decisions that

impact them, that increased input from the community is likely to lead to less resistance and greater acceptance of outcomes, and that public participation in policy enactment and delivery results in overall better decision-making due to a range of divergent views being considered that shape the overall policy outcome (Reed, 2008; Cameron & Grant-Smith, 2014).

The mere presence of policy instruments, legal frameworks, and support programs does not in and of its own result in better public participation or policy outcomes (Gaventa, 2006). Arguably, genuine public participation strategies (particularly those that vest power in the hands of the community) could significantly improve engagement by the community with planning and environmental management decisions, encourage collective debate and reinforce the legitimacy of final decisions, if executed correctly (Healey, 1992; Serrao-Neumann et al., 2015). Whether such involvement necessarily flows on to deliver high-quality outcomes is contested (Brody, 2003; Serrao-Neumann et al., 2015). There are clear barriers to effective participation, with the obvious one being the reluctance of policymakers to devolve power and control of decisions, in conjunction with the responsibility of carrying out participatory activities, to targeted actors (Head, 2007; Serrao-Neumann et al., 2015). By necessity, this also raises the question of whether this power and control should be devolved, or indeed whether the citizenry should accept such a devolution. In an environmental context, concerns have also been voiced regarding the lack of measurable conservation outcomes achieved, combined with those criticising participatory governance as a manifestation of neoliberal thought (Fletcher, 2010). Faced with trying to solve complex environmental problems, governments tend to rely on solutions driven by technocrats, who construct participatory processes which reinforce the beliefs of policymakers (Fletcher, 2010).

## **2.4 Stewardship and participatory governance in fisheries**

There has been a significant degradation of Australia's freshwater and coastal habitats since European settlement, which has impacted the overall size and utility of Australian fisheries (Copeland, 2012). The presence of barriers to fish passage, reduced and changed river flows, and degraded estuaries are examples of contemporary fisheries management challenges (Copeland, 2012). There are a number of threats to the sustainability of fisheries, including those relating to the security of marine biodiversity and overall fish stocks. Some of these threats include climate change, resource use by commercial and recreational fishers, land-based impacts, marine bio-security and marine biodiversity (NSW Parliament, 2010). There is considerable debate regarding the comparative level of risk posed by these threats, and which policymakers may be implicated in creating them.

In regards to recreational fishing, views range from the activity having no impact on fish habitat, to the activity being the main threat to the ongoing utility of fish habitats (NSW Parliament, 2010). However, whilst harvest by recreational fishers can impact fish stock (Cooke & Cowx, 2004), scientific evidence suggests that the main threats to freshwater fisheries habitats can be traced back to larger issues such as point and non-point marine pollution, changes in the distribution and abundance of marine species, and broader loss of habitat as a result of development (Dudgeon et al., 2006; Cowx et al., 2010; Koehn & Lintermans, 2012; Copeland et al., 2017; Marine Biodiversity Decline Working Group, 2008).

Given the extent of the loss of fish habitat over the last two centuries, it is perhaps unsurprising that efforts have been made to mobilise non-state actors to participate in habitat stewardship activities, in much the same way farmers and landholders were mobilised through programs such as Landcare (Wilson, 2004; Granek et al., 2008; NSW DPI, 2016a). The international experience (see for example the US, Ireland, and the UK) suggests that recreational fishing groups and individual fishers can be mobilised as key participants in achieving improvements to degraded fish habitat (Copeland, 2012). Recreational fishers in comparable jurisdictions, including the US and UK, are three times more likely to participate in stewardship activities than recreational fishers in Australia (Copeland, 2012). Concern has been expressed by some policymakers that, in Australia there has been no widespread coming together in recognition of the problem and that there needs to be ‘a sense of ownership and responsibility for addressing it among the recreational fishing community’ (Copeland, 2012: 21).

As an activity, recreational fishing has a number of direct and indirect impacts on fish habitat. These impacts can include a reduction in fish populations through harvest mortality, impacts on population structures due to selective harvest, loss of genetic diversity, increased mortality through catch-and-release programs, and disturbances through noise, trampling and boat traffic (Granek et al., 2008). Arlinghaus et al. (2002) suggest that activities such as fish stocking and the introduction of non-native fish species, which fisheries managers undertake to support recreational fishing, have significant ecosystem-wide impacts, and that such activities can threaten indigenous species. Fish stocking is described as being ‘particularly insidious’ as it can mask the impact that recreational fishing has on fish habitats (Granek et al., 2008: 1127). The traditional regulatory toolbox used to manage the impacts of recreational fishing on fish habitats is diverse (Cooke et al., 2013). Some of the options available to fisheries managers to manage fishery mortality rates include regulating who can fish through the issuing of licenses, limiting the span of the fishing season, restricting areas open to fishing, capping

allowable harvests in terms of species and catch, and regulating the method of take (Irwin et al., 2011).

One of the key principles underpinning contemporary fisheries management is that of polycentric governance, which states that issues should be addressed at the appropriate scale, with local issues being solved locally, regional issues being solved regionally, and national issues being solved at the national level (Elmer et al., 2017). Encouraging stakeholders such as recreational fishers to collaborate with policymakers to successfully restore degraded habitats, and to reduce the impact of their chosen pursuit on fish habitats, is perceived by some policymakers and academics as critical to achieving this end (Elmer et al., 2017). Sawchuc et al. (2015) support this position, arguing that the understanding, support, and participation from actors such as recreational fishers is fundamental when managing natural resources that largely rely on self-regulation and self-reporting. There is evidence of recreational fishers voluntarily developing norms of proper behaviour independently of other actors, which can help achieve public management objectives and are useful for conserving fishery resources (Cooke et al., 2013). There is also an argument that, in order to achieve long-term behavioural change in recreational fishers, the provision of participatory activities which genuinely empower them is critical (Hames et al., 2014).

Granek et al. (2008: 1131) suggest that there are three primary factors which influence the likelihood of recreational fisher involvement in habitat stewardship activities. These factors are: the stakeholder degree of stewardship; the scale of the resource, user group or management structure; and the source of the impacts on the fishery. Stakeholder environmental stewardship was identified as a critical factor in the success of habitat management activities, due to it facilitating support of fisheries management and conservation measures, and for fostering trust between different actors. Fishers who demonstrate stewardship behaviours, brought about through either personal experience or effective education campaigns, are more likely to be involved in such participatory activities. Granek et al. (2008) go on to suggest that the smaller the fishery, the more likely fishers are to feel responsible for its conservation. Finally, involvement is related to the perceived nature of the threat to the fishery – when fishers are ‘protecting a valued resource from threats external to recreational fishing such as commercial fishing, habitat destruction or invasive species, fisher involvement is likely to be high’ (Granek et al., 2008: 1131). Hillborn (2008) also identifies the cooperation of stakeholders as one of the three characteristics of well-managed fisheries that are environmentally, economically and socially successful (the other two being restricted access and maintenance of biological productivity).

Governments have historically tended to undervalue the significance of fish habitat frequented by recreational fishers, a position which needs to be shifted in order to ensure the ongoing sustainability and utility of this natural capital (Arlinghaus et al., 2016; Elmer et al., 2017). As this chapter has established, one of the mechanisms by which policymakers are now seeking to do this is through engendering stewardship behaviours in key stakeholder groups. There is recognition both in the literature and practice that increasing public stewardship of resources requires capacity building amongst their key users (Sawchuc et al., 2015; NSW DPI, 2016a). With this in mind, fisheries management practices which result in negative consequences for local communities will impede the ability of these communities to effectively engage with policy in the future (Brookes et al., 2015). This underscores the need to understand the social implications of fisheries management approaches in order to effectively foster positive stewardship behaviours.

## **2.5 Understanding stewardship through neoliberalism, governance, voluntarism, and responsabilisation**

### **2.5.1 Neoliberalism and environmental management**

Critical social science engagement with natural resource management has increasingly engaged with the concept of neoliberalism, due to its predominance in shaping contemporary policy and discourse (Fletcher, 2010; Curtis et al., 2014). The relationship between the environment and neoliberalism, with its calls for allowing ‘the market’ to address environmental governance issues, is one that is complex and inexplicable (Mansfield, 2004). Manifestations of neoliberalism in contemporary policy enactment have generated significant environmental consequences (McCarthy & Prudham, 2004). It is notable that neoliberalism and modern environmentalism have together emerged as the most prominent social and ideological foundations for environmental governance over the last fifty years, with environmentalism arguably the most powerful counter-discourse to unfettered neoliberalism (McCarthy & Prudham, 2004). This interplay and tension is at the foundation of environmental policy development in Australia, and thus warrants further exploration.

Crafting a single uncontested definition for neoliberalism is not straightforward, particularly given the term encompasses a ‘complex assemblage of ideological commitments, discursive representations and institutional practices, all propagated by highly specific class alliances and organised at multiple geographical scales’ (McCarthy & Prudham, 2004: 276). For the purposes of this thesis, the approach of Shamir (2008) is adopted, whereby neoliberalism is treated as neither a concrete economic or political ideology. Rather, it is treated

as a concept that revolves around certain dimensions. There is broad scholastic agreement on a set of identifiable dimensions underpinning neoliberalism, including: the primacy of the self-regulating market for natural resource exchange and consumption; the guarantee by the state of property rights and competition; the decentralisation of resource governance to other actors, including those at a local level as well as non-state actors; the commodification of resources; and acceptance that the state should not interfere in or distort markets (McCarthy & Prudham, 2004; Shamir, 2008; Emesh et al., 2010; Fletcher, 2010). In its starkest form, there is a desire to see the market utilised as the primary mechanism for the allocation of goods and services across all levels of society, including those hitherto seen as outside or even antagonistic to economic life (McCarthy & Prudham, 2004; McCarthy, 2005; Shamir, 2008). The economy is not imagined as one sphere of civil life but instead is redefined as the basis for society as a whole (Shamir, 2008).

The notion that *everything* can be commodified and allocated in a way that is economically rational is one that neatly couples with a political and ideological antagonism towards state interference in society, particularly in the form of regulation – the exception to this being an endorsement of inalienable property rights that are able to be defended by the state (Mansfield, 2004; McCarthy & Prudham, 2004; Emesh et al., 2010). Foucault (2008) argues the central architects of neoliberalism, including Hayek and Friedman, did not actually envision the laissez-faire free market so idolised by many adherents to this ideology; rather, the creation and ongoing success of an ostensibly ‘free’ market requires pervasive government intervention and regulation. It is, according to this view, an artificial construct that should be maintained through ‘permanent vigilance, activity, and intervention’ which is manifested in diverse forms of governance (Foucault, 2008: 132). This approach better aligns with later incarnations of neoliberalism in practice.

In its earliest incarnations, manifestations of neoliberalism were focused on the withdrawal (or rollback) of the state from economic life, with significant import placed on deregulatory activities (McCarthy, 2005; Mansfield, 2005; Emesh et al., 2010). Governments articulating neoliberal ideology (most evidently in Reaganite US and Thatcherite UK, but also later in other jurisdictions including Howard’s and Abbott’s Australia) featured deep cuts to the fiscal and administrative resources and functions of the state—particularly those aimed at ameliorating the social and environmental effects of capitalist production—all in the name of fostering economic competitiveness (McCarthy & Prudham, 2004). Whilst proponents of neoliberal thought celebrate the rollback component of such institutional changes, critics argue this leaves governance processes vulnerable to capture by non-state actors, particularly if a

vacuum is left by the withdrawal (Peck & Tickell, 2002). The environmental externalities of this early, rollback neoliberalism are widely recognised, even if there is considerable debate regarding their social consequences (Castree, 2008).

Recently there has been a partial rejection of these earlier manifestations of neoliberal thought; a more practical neoliberalism has evolved, focusing on the 'rollout' of new regulations, which defines new ways in which the state may intervene and regulate (Mansfield, 2005; Lockie & Higgins, 2007). Under this approach, the state still subscribes to neoliberal ideals, however actively intervenes where it considers it can more directly cater to commercial interests, create competition, and foster responsibility within communities for delivering on policy aims (Lawrence, Richards & Lyons, 2013). This agenda, combining technocratic techniques of economic management with an interventionist approach on certain (particularly environmental) issues, can be analysed using a governance theory framework to explain the trend *du jour* of the state governing at a distance (Lockie & Higgins, 2007). In such a context, how modalities of governmental authority are deployed shifts from enforceable legislation, rules, and regulation, and instead is partially replaced through voluntary mechanisms fostering ideal behaviours among citizens (Shamir, 2008). Law becomes a coded problem-solving process, embracing concepts like constructive dialogue, multi-stakeholder cooperation, and public participation, rather than being solely a command and control activity (Shamir, 2008).

This restructuring effort involves mobilising local communities and user groups, joint environmental management schemes, non-government organisation initiatives, cooperative bodies and other actors at both the macro and micro level (Meynen & Doornbos, 2004). Fundamental to success is its perception amongst actors as a conscious, collaborative, deliberative and goal oriented steering process, with the aim of delivering more sustainable and equitable outcomes (Meynen & Doornbos, 2004; Pierre & Peters, 2000). Whilst this is framed by advocates as a positive trend, it is inextricably tied to an implicit agenda of governing at a distance; in other words, to govern through regulated choices by strategically creating moral, autonomous actors with ethical commitments to those around them (Summerville & Adkins, 2008).

The impacts of this restructuring of economic and social life, as well as on the management of natural capital, have been immense (Meynen & Doornbos, 2004). These impacts include: the privatisation of functions previously performed by the state through putatively market-based schema, the rescaling of governance and devolution of regulatory responsibilities to local government (often without proportional transfers of power), and a shift from relying solely on binding laws to achieve compliance to increasingly voluntary,



neocorporatist regulatory frameworks premised on non-binding standards and self-regulation, public-private cooperation and greater participation from the citizenry (McCarthy & Prudham, 2004; Fletcher, 2010). This shift is evident in the policy instruments that are being deployed by governments across jurisdictions in an endeavour to deliver sustainable ecological outcomes. Critically for this thesis (and thus the reason an understanding of neoliberalism is so important for this work), it is the attempted creation of *homo economicus*—the ideal, entrepreneurial, self-made and self-sufficient individual, vested in protecting their own interests—that sits at the heart of neoliberal notions of citizenship (McCarthy & Prudham, 2004; Foucault, 2008).

In a neoliberal world, *homo economicus* becomes his own capital, producer, and source of earnings, with the associated diminishing of the role for the state that this implies (Foucault, 2008). Foucault argues there is space for government intervention here in the neoliberal school of thought, consistent with ‘rollout’ manifestations of neoliberalism. Left to their own devices the competitive neoliberal *homo economicus* will undermine social goals in pursuit of profit, and governmental policy must, therefore, adjust for this reality by encouraging—through the creation of appropriate incentive structures—the direction of individual self-interest towards socially productive ends (Foucault, 2008; Fletcher, 2010). This idea is central to the arguments advanced in this thesis.

Critics of the neoliberal school of thought have raised a number of concerns regarding its ideological ascendancy. In particular, governance trends which are grounded in neoliberal ideology may allow non-state actors, including corporations, to disproportionately exercise power over local habitats through decentralised governance structures that are ostensibly cloaked in participatory forms of governance (Levine, 2002; Fletcher, 2010). There are also concerns that marginal communities may be disenfranchised from resources that are enveloped by extended market structures, and the commodification of resources that is associated with neoliberalism may alter local culture (including the values and meanings that are ascribed to these resources) (Sullivan, 2006; Brockington et al., 2008; Fletcher, 2010). Critics of neoliberalism also voice concern with the neoliberal notions of citizens, arguing against the ideals that underpin ‘*homo economicus*’ (Sullivan, 2006; Fletcher, 2010).

The fact that much of this critique is built on the tension between environmentalism and neoliberalism cannot be escaped (Fletcher, 2010). Putting aside the use of rhetorical devices which invoke images of freedom, liberty, choice, and rights, it has been argued that the reality of this philosophy is the reification of class power dressed up as neoliberal capitalism (Harvey, 2005; Fletcher, 2010). With the ascendancy of neoliberal thought, a new governance paradigm

has become entrenched in public administration. This chapter now turns to exploring this concept in greater depth.

### **2.5.2 Governance**

The economisation of the social and environmental has shaped the emergence of a new governance paradigm which breaks from the conventional models of regulation and administration by state actors (Lobel, 2004; Shamir, 2008). The juxtaposition of state actors being asked to solve problems (including those relating to fisheries management) whilst minimising any state intervention that may be construed as a threat to economic (and by extension social) interests can only be described as paradoxical. The move from government to governance creates opportunities to involve non-state actors in the creation of laws and policies, resulting in both a more heterogeneous state and more complex and hybrid legal and political terrain (Santos, 2006; Jentoft, 2011). In this evolution, government becomes increasingly concerned with ‘how best to inculcate within a national population the appropriate moral code, model of behaviour and standards of comportment compatible with the common weal of emerging capitalist, essentially monotheist societies’ (Argent, 2005: 30) This terrain is littered with questions regarding whether actors are disproportionately accepting responsibility for solving problems they are not the cause of, questions at the heart of this research project.

Conceptually, governance theory starts from the assumption that the state is not the only entity that has the power to impact on the course of events (Jentoft, 2007). Governance theory is generally agreed to connote a move away from the legalistic, bureaucratic, centralised, top-down configurations of authority toward a more reflexive, self-regulatory, and horizontal market-like configuration of authority involving multiple actors (Lobel, 2004; Shamir, 2008). The governance paradigm is one premised on the logic of competitive market relations, where these multiple actors consult, trade and compete over the deployment of various instruments of authority (Shamir, 2008). Theoretically, the paradigmatic shift from government to governance sees state actors relinquishing some of their privileged authoritative positions, and being reconfigured to be one source of authority among many (Kooiman & Jentoft, 2009).

However, in its neoliberal incarnation, governance is premised on facilitating private forms of authority with private actors increasingly assuming regulatory roles through privatisation, franchising, outsourcing and the deregulation of functions previously the purview of the state (Kirby, 2006; Shamir, 2008). This distribution of authority to other state and non-state actors occurs in a context in which they assume the economic enterprise form, follow principles of economic sustainability and cost-benefit risk management, and adhere to

standards of performance that have a distinct economic undercurrent running through them (Shamir, 2008; Kooiman & Jentoft, 2009). Critically for both this thesis and for understanding contemporary fisheries management, governance theory promotes a devolution of responsibility (although not always associated power), disproportionately transferring the responsibility for the delivery of policy objectives to a variety of non-state actors (Lobel, 2004).

Advocates of governance theory argue it enables society to harness the power of new technologies, market innovations, and civic engagement to enable different stakeholders to contribute to the achievement of policy objectives; that it facilitates creative, flexible and efficient best practice solutions that leave the greatest amount of control in the hands of those closest to the problem; and that one of its strengths is that economic efficiency and democratic legitimacy can be mutually reinforcing (Lobel, 2004; Shamir, 2008; Khan & Neis, 2010). When considering governance as it relates to resolving environmental issues, advocates of governance theory draw attention to the fact that environmental statutes inevitably adopt a reductionist approach which focuses on the utilitarian benefit of environmental resources for humans, rather than adopting a holistic, eco-centric view (Preston, 2012). Environmental laws inherently skew the distribution of environmental benefits to users of the relevant resource. Statutes rarely articulate that priority or weight be given to biological diversity, with objects clauses more often than not being mere recitals of competing environmental and economic objectives (Preston, 2012).

From an environmental perspective, it remains to be seen whether the paradigmatic shift and rescaling of responsibility to local and regional scales achieves more sustainable natural resource management practices. This rescaling must be capable of minimising environmental degradation, promoting sustainable and equitable natural resource use, allowing more effective handling of resource conflicts and facilitating joint environmental resource development (Meynen & Doornbos, 2004). Critics of the aforementioned paradigmatic shift point to the failure of the move towards decentralised natural resource management strategies to deliver substantial conservation outcomes, associating this failure with the embrace of neoliberal thought (Ehrenfeld, 2008; Fletcher, 2010; Lockwood & Davidson, 2010). Under this paradigm, policymakers face significant challenges when developing effective mechanisms to protect individuals dealing with private actors fulfilling the responsibilities of the state. This is particularly relevant given remedies available in the public law and administrative law spheres when the state is delivering services and something goes awry (Kirby, 2006). As a modality of power, governance theory relies on predisposing social actors to assume responsibility for their actions, as well as for wider societal issues (Shamir, 2008).

There are of course counter discourses regarding the most effective way to deal with contemporary natural resource management challenges, which posit that governance may not be the most appropriate solution. Whilst devolving responsibilities for natural resource management to non-state actors is certainly in vogue, there are counter-views calling for the imposition of positive duties on state regulatory authorities deliver on policy objectives and prevent negative impacts on the environment (Preston, 2012). Environmental statutes typically impose negative duties; a move towards the imposition of positive duties on actors to ensure the environment is protected would be a radical adjustment and one that runs counter to an ascendant neoliberal ideology (Preston, 2012). The adoption of such an approach does not appear to be achievable in the current paradigm; instead, there is a trend among policy actors towards implementing policies that are founded on the drafting of volunteers. This chapter turns to exploring this trend and unpacking the links between neoliberalism, governance theory and the embrace by policymakers of volunteering as a core part of constructed policy solutions.

### **2.5.3 Voluntarism**

Volunteers perform a fundamental role in civil society (Cohen & Arato, 1992). Governments are increasingly integrating the use of volunteers into conservation policy solutions, with many governmental entities dependent on volunteers in order to achieve conservation goals (Asah & Blahna, 2012). This is unsurprising and is arguably a natural consequence of the competing pressures policymakers are balancing. There is an argument that volunteers can have a positive impact on environmental outcomes. For example, Ryan, Kaplan and Grese (2001) suggest volunteers are responsible for some of the environmental gains in natural resource management over the last several decades, and that participation in stewardship programs can transform the way people view the natural environment (which can also lead to improved environmental outcomes).

Voluntary action is characterised by three main features – the provision of unpaid work, willingness and choice to participate, and the provision of labour for a public purpose (Apostolidis & Paspaspyropoulos, 2002). Volunteers in stewardship programs may experience psychological, emotional, cognitive and social benefits which are inherent to contact with nature, and to involvement in environmental restoration (Krasny et al., 2014b). For example, in their study of oyster gardeners<sup>2</sup>, Krasny et al. (2014a) state that volunteers embed social meanings within ecological meanings when describing their motivations, and that this suggests

---

<sup>2</sup> Oyster gardeners are volunteers who place cages with young oysters at agreed upon locations, and whom agree to monitor growth and survival rates (Krasny et al., 2014a)

a coupling of social and ecological factors in environmental volunteerism research. Forming the foundation of many volunteer environmental steward motivation studies is the concept of functionalism, which is based on the premise that ‘people come with needs and motives important to them and volunteer service tasks do or do not afford opportunities to fulfil those needs and motives’ (Clary et al., 1998: 1529). Clary et al.’s (1998) Volunteer Functions Inventory focused on six psychological functions served by volunteerism: values (expressing altruistic concern), understanding (gaining skills/ knowledge), social (building relationships), protective (ameliorating negative feelings), career (gaining practical experience) and enhancement (personal development). Later studies (see Asah & Blahna, 2012; Bruyere & Rappe, 2007 as examples) have sought to narrow the function of values as articulated by Clary et al. (1998) to expressing concern for the environment.

Within the sphere of natural resource management, environmental volunteer practices can include activities like monitoring and managing protected areas, tree planting, invasive species removal and native habitat restoration (Krasny et al., 2014b; Liarakou, Kostelou & Gavrilakis (2011). There is research which suggests the degradation in the quality of habitat is a predictor for increased intentions in activating participatory environmental behaviours, such as joining an environmental activist group (Stedman, 2002). Several studies have also sought to focus on the motivation of volunteers who sought to help conserve a particular species or habitat (Krasny et al., 2014a). As an exemplar, Gooch (2003) conducted a qualitative inquiry, interviewing volunteers working locally with stewardship groups such as Landcare and Coastcare in Australia. The results of this study uncovered a volunteer motivation hitherto not reported, that of a personal attachment to the local area. Other studies such as Andersson et al. (2007) have corroborated the findings that a sense of place—or the meaning that people attach to settings (Stedman, 2002)—is an important motivator for eco-volunteers. A desire to rehabilitate habitat to a perceived healthier state has also been shown to be an important motivator in environmental stewardship volunteering in Australia (Gooch, 2003).

One step beyond volunteering is the concept of voluntarism. Voluntarism is an ideological embrace of the virtues of volunteering, with its participants and apparatus positioned as acting in the interests of the common good (Altman, 2013). Conceptually, voluntarism is poised to capture the arguable benefits of the great Foucauldian lesson on neoliberal governance, where ‘the task of government is no longer to correct market imbalances through deficit spending, collective bargaining rights or full employment... but to intervene in society to make sure it contains the necessary values, tastes and attitudes... to run smoothly’ (Vrasti & Montison, 2014: 338). Volunteering is constructed as an act that is central to the

effective functioning of the community, with the positive qualities at its centre—altruism, helping, participating and inclusion—all emphasised as being virtuous (Altman, 2013). There is a clear distinction between the act of volunteering and the ideology of voluntarism; when it becomes unthinkable to criticise volunteering or question whether there are harms associated with the act, there is a manifestation of voluntarism at play (Altman, 2013). It is through voluntarism that the act of volunteering can be seen as a key technique for disseminating appropriate forms of conduct (Vrasti & Montison, 2014). By adopting such a perspective, causal links may be established between volunteering and the previous discussion on governance.

Voluntarism aligns with the principles of neoliberal modes of governance, whereby the voluntary sector has become a key component of delivering services traditionally considered to be within the responsibility of the state (Altman, 2013). Rather than ‘make a difference’ or ‘give back’ to the community, the primary effect of institutionalised volunteering is to ‘produce, sustain and legitimise subjects and social relations that are congruent with the ethos of neoliberal capital’ (Vrasti & Montison, 2014: 338). This view is not designed to call into question the likely genuine impulses of care and compassion expressed by volunteers through their actions. Rather, it is designed to highlight that these emotions, even when genuine, become mobilised for purposes other than that which participants intend (Vrasti & Montison, 2014). Following Foucault, voluntarism can therefore be understood as a strategy useful in:

governing communities without direct government intervention (and spending);  
equipping individuals with the social and emotional competencies necessary for  
producing value in communicative capitalism, and situating certain spaced,  
communities and identities as favourable junctions in the global flow of capital (Vrasti  
& Montison, 2014: 339).

Through the lens of voluntarism, the support of volunteering by the state may be seen as a remodelling of citizenship based on an evolution of citizenship centred on rights to one with an emphasis on responsibilities and obligations (Abrahamsen, 2004; Altman, 2013). With an emphasis on choice, empowerment, and self-help, individuals are encouraged to emancipate themselves from the state and create their own opportunities in order to remedy problems they encounter whilst conducting their lives (Altman, 2013). The underlying motive here can be construed as a desire to create active citizens who drain less from the public purse, whilst accepting responsibility for their own future (Abrahamsen, 2004; Altman, 2013). This can be framed as a manifestation of responsabilisation, a concept which sits at the very heart of this

thesis. This chapter now turns to exploring responsabilisation in depth and to drawing links between the concepts which have been discussed to this point.

#### **2.5.4 Responsibilisation**

The move towards neoliberal modes of governing has seen an increasing emphasis on the role that private actors can play in the delivery of services that historically have been seen to be the responsibility of government (Gray, 2009; Soneryd & Ugglå, 2015). An important assumption underpinning contemporary Western capitalism, and neoliberal governance in particular, is that processes of governing and responsibility-taking are interlinked (Pyysiäinen, Halpin & Guilfoyle, 2017). Whilst interpretations around the tasks which should fall within the purview of the public and private sectors have swung over time (Reinecke & Ansari, 2016), there has been a clear trend in recent years to shifting responsibility to non-state actors, and to encouraging civil society actors to accept additional responsibilities, without a commensurate transfer of power (Gray, 2009; Thorn & Svenberg, 2016). State policy actors have mobilised individuals, private enterprise, and communities, while divesting themselves of the responsibility of meeting the social, environmental and economic needs and aspirations of the citizenry (Ilcan & Basok, 2004). This process is known as responsabilisation, a concept which serves as the practical link connecting ideal-typical schemes of governance to the practices of policymakers on the ground (Shamir, 2008).

Responsibilisation refers to the expectation and assumption of the reflexive moral capacities of social actors (Shamir, 2008). The remote and indirect actions of the state are enabled by the establishment of a form of self-hood, whereby the agent produces the ends of government by fulfilling themselves, rather than being merely obedient to the whims of the state (Pyysiäinen, Halpin & Guilfoyle, 2017). At an institutional level, this includes mobilising associations, organisations and other potential sources of authority that may be brought into the governance terrain, in order to achieve policy objectives (Shamir, 2008). Authority and rule are exercised by individuals acting upon themselves, rather than giving way to some externally enforced agent, such as the state (Pyysiäinen, Halpin & Guilfoyle, 2017).

Aligning with the dimensions of neoliberalism defined earlier in this chapter, responsabilisation operates at the level of the individual, reconfiguring roles and identities in order to mobilise designated actors to undertake and perform self-governing tasks (Shamir, 2008; Summerville & Adkins, 2008). As a technique of governance, it is squarely premised on the construction of moral agency as a necessary precondition for ensuring an entrepreneurial, self-sufficient disposition (the aforementioned *homo economicus*) in the citizenry, and socio-

moral authority in institutions (McCarthy & Prudham, 2004; Shamir, 2008). A unifying theme across neoliberal policy programs is the desire to create congruence between economic rationality and moral responsibility (Lemke, 2001; Shamir, 2008; Cooper & Rosin, 2014). In the neoliberal paradigm, networks consisting of government agencies, businesses, environmental advocacy groups and other stakeholders are established to either self-regulate (based on discourses of moral responsibility) or to establish standards and codes which are meant to function as either an alternative to, or complement to, traditional regulations (Thorn & Svenberg, 2016).

Responsibility ‘is a core concept in moral and legal thinking’, and is central to much of the theory surrounding risk (McLennan & Handmer, 2012: 1). What is perhaps unique to neoliberal modes of governing is how responsibility for managing risks in multiple social domains is devolved to the individual and other non-state actors, when historically this responsibility has sat with the state itself (Aykan & Güvenç-Salgırlı, 2015). For example, the state is devolving responsibility to individuals, families, and communities for their own risks ‘of physical and mental ill-health, or unemployment, of poverty in old age, or poor educational performance, or of becoming the victims of crime’ (Dean, 2009: 194). Through this problematisation of risk governance—constructed fundamentally as a matter of individual choice—the subject of responsibility is constructed at the level of the individual (Aykan & Güvenç-Salgırlı, 2015). Policy measures are designed to help individuals fulfil their responsibilities by informing, guiding and providing the products and tools to facilitate individual choice (Soneryd & Ugglå, 2015). Target communities are positioned as being virtuous and efficient deliverers of services and tasks that have been traditionally been delivered by the government (Ilcan & Basok, 2004). This shift of responsibility to communities and other non-state actors represents a shift to actors who lack public accountability (Ilcan & Basok, 2004), which is a problematic consequence.

Technologies of responsabilisation coexist with modes of governance that represent traditional state-centred regulatory mechanisms (Soneryd & Ugglå, 2015). Critiques of public policy underpinned by responsabilisation are based on the attempts to shift ‘the burden of social control on to individuals and organisations that are often poorly equipped to carry out this task’ (Garland, 1996: 466). Actors often lack the technical know-how, resources, authority or power to carry out the responsibilities of the state, and it is thus completely reasonable for critics to question the efficacy of adopting such policy solutions. Rather than focusing on rights, critics of the devolution of responsibility to non-state actors argue that notions of responsibility and



obligation are an informal mechanism of social control that sit at the centre of contemporary citizenship discourses (Ilcan & Basok, 2004; Gray, 2009).

Responsibilisation has been explored in numerous policy contexts, such as barebacking<sup>3</sup> practices among gay men and the associated framing by governments and advocacy groups that they should take sole responsibility for the associated risks of HIV transmission (Adam, 2005). A further example is workers being encouraged to take responsibility for workplace health and safety issues (Gray, 2009), with responsibility transferred to the individual, and the worker thus being responsible for the risks associated with their choices (Grant-Smith & McDonald, 2015). Additional examples include those of crime control (Garland, 1996); broader work-related risks (Mascini, Achterberg & Houtman, 2013; Rasmussen, 2010); and the personal security of international travellers (Lowenheim, 2007). This transfer of risk and responsibility to the individual is decontextualised, depoliticised, and neglects the social and political domains within which the individual is situated (Gray, 2009). Whilst individualised responsibility has received attention in environmental policy (Soneryd & Ugglå, 2015), less attention has been paid to the concept within an Australian context. In particular, limited scholarly attention has been paid to how responsibilisation has manifested within the context of Australian natural resource management (Lockwood & Davidson, 2009; McLennan & Handmer, 2012). Further, there has been scant attention paid to how the technologies of responsibilisation have been discursively deployed within the context of Australian fisheries management. This is an area which warrants academic attention, and this thesis seeks to fill this research gap.

## **2.7 Conclusion**

The review of key literature presented in this chapter has drawn on relevant concepts which can be used to explain the shift towards the mobilisation of non-state actors to increase their participation in activities that have historically been the responsibility of the state. Trends in participatory governance were considered, as were the mechanisms which foster behaviours linked to stewardship of natural capital. Through an exploration of key literature linked to neoliberalism, governance, voluntarism, and responsibilisation, this literature review used the current body of knowledge to provide a lens through which to explore the NSW DPI's desire to mobilise non-state actors to embrace stewardship activities.

---

<sup>3</sup> Barebacking refers to the practice of having anal intercourse without the use of a condom (Mansergh et al. 2002)

Neoliberal modes of governance are predicated on a generalised praxis of responsabilisation, a process which can be described as unidirectional, with non-state actors ordinarily deemed to be passive receivers (Thorn & Svenberg, 2016; Pyysiäinen, Halpin & Guilfoyle, 2017). This chapter earlier touched on the construction of *homo economicus*, the ideal entrepreneurial subject of neoliberal modes of governing. This entrepreneurial mentality transcends purely economic transactions and extends to all spheres of life (Aykan & Güvenç-Salgırlı, 2015). Aykan & Güvenç-Salgırlı (2015) suggest that this mentality particularly manifests when *homo economicus* considers his<sup>4</sup> relationship to risk – to the rational *homo economicus*, risk management mediates his position in life, actions, decisions and relations. *Homo economicus* is a governable individual – someone who is manageable, someone who ‘accepts reality or who responds systematically to modifications in the variables of the environment’ (Foucault, 2008: 270). As Chapter Two comes to a close, and this thesis turns to discussing the research design and methodology underpinning this research, the attempted mobilisation of *homo economicus* by policymakers is highlighted as a manifestation of the disparate theories sitting at the heart of this thesis.

---

<sup>4</sup> *Homo economicus* translates to ‘economic man’, and is referred to in the texts I have cited as gendered terms. As a result, the pronouns he/him have been used throughout this work.

# Chapter Three – Research Methodology

## 3.1 Research aim and questions

Chapter Two explored the concepts of stewardship of natural capital and public participation in government, particularly within the fisheries management context. That chapter demonstrated how these concepts could be understood through the lens of neoliberalism, governance, voluntarism, and responsabilisation. Chapter Two argued these theoretical constructs provide a useful lens for examining how the state has sought to mobilise non-state actors to accept responsibility for carrying out tasks previously considered to be the function of government. Chapter Two also argued that a unifying theme across neoliberal policy programs is the desire to create congruence between economic rationality and moral responsibility. That chapter argued that in the current paradigm there is a clear agenda of governing at a distance, with those in power seeking to govern through the use of regulated choices by strategically creating moral, autonomous actors who are predisposed to be key players in the delivery of policy solutions. The mobilisation of *homo economicus* by policymakers was highlighted as a phenomenon worthy of further academic attention, as it is demonstrative of the manifestation of the intertwined theories of neoliberalism, governance, voluntarism, and responsabilisation.

The aim of this research is to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy. By doing so, this research identifies the discursive strategies used to attribute blame for fish habitat degradation, and whether there is a dissonance between to whom blame is attributed and the stakeholder groups which the NSW DPI is advocating take responsibility for remedying the problem. In pursuit of this aim, this research seeks to address three central research questions:

1. How is the degradation of NSW fish habitats framed in stewardship policy?
2. How are solutions to the degradation of NSW fish habitats constructed in stewardship policy?
3. Which stakeholders are attributed with responsibility for enacting these solutions?

Chapter Three opens with a discussion of the philosophical perspective which underpins this research. The theoretical justification for the use of qualitative research and selecting a single case study is provided, along with contextual information relevant to the case study. This

chapter describes Yanow's (2000) approach to interpretive policy analysis, which has been used to interpret and understand the selected case study. Interpretive policy analysis enables a focus on 'the meanings of policies, on the values, feelings, or beliefs they express, and on the processes by which those meanings are communicated to and read by various audiences' (Yanow, 2000: 14). Yanow's (2000) approach to interpretive policy analysis has five steps which are outlined in this chapter. Through the lens of interpretive policy analysis, policymaking can be viewed as a mechanism through which social or environmental phenomena are named, framed and explained by policymakers in the creation of policy problems and solutions (Maddison & Denniss, 2009; Jorgensen, 2012; Freitag, 2014). Chapter Three moves on to justify the use of these themes to structure the analysis of the selected texts. This chapter concludes with a discussion and justification for the use of documentary analysis, along with confirmation of the validity and reliability of the research methodology utilised by the researcher.

### **3.2 Philosophical perspective underpinning this research**

This research adopts a social constructionist orientation. The adoption of social constructionist approaches to explore environmental governance problems is becoming increasingly common, and such approaches are generally acknowledged as being useful to effectively study environmental and social phenomena (Juhola, Keskitalo & Westerhoff, 2011). Andrews (2012: 39) suggests that 'social constructionism originated as an attempt to come to terms with the nature of reality.' With origins in sociology, social constructionism has been primarily associated with the post-modern era of qualitative research and its use is increasing across a range of disciplines (Andrews, 2012). Throughout history, it has been widely accepted that human knowledge is underpinned by fixed natural or metaphysical laws which are socially, culturally and historically invariant (Wagenaar, 2014). By contrast, social constructionists believe that knowledge by its very nature is culturally relative or historically specific. At its core, social constructionism provides an alternate process through which people can explain the world in which they live (Gergen, 1985).

Thus, rather than viewing knowledge and truth as being discoverable, those who subscribe to a social constructionist perspective view knowledge and truth as constructed and influenced through social forces (Alanen, 2015; Andrews, 2012). Research adopting such an approach is primarily interested in the gradual change of ideas, practices, institutions, and people; it is the 'holistic quality of these changes, the way that things hang together on the

trajectory of change' that provides the experience that a piece of reality that is being constructed (Wagenaar, 2014: 184).

Burr (2015) suggests there are four elements central to an approach underpinned by a social constructionist perspective. These are: taking a critical stance to knowledge which has hitherto been taken for granted; adopting the view that the ways in which we commonly understand the world are historically and culturally specific (as opposed to being symptomatic of human nature); adopting the view that knowledge is sustained by social processes; and finally, adopting the belief that knowledge and social action go together. Taken together, the subject of the research agenda is viewed as socially, culturally and historically situated; significant emphasis is also placed on knowledge, meanings and its methods of exchange (Sharpe & Richardson, 2001). Research underpinned by social constructionism does not seek to uncover an ultimate truth or reality, rather it seeks to provide a consistent and coherent explanation for events (Jacobs, 1999). Whilst social constructionism is increasingly being adopted across multiple disciplines, as a philosophical perspective, it has been critiqued as having a number of short-comings.

Social constructionism has been critiqued within quarters of the scientific community (Weinberg, 2014). Critics argue that research which commences from a social constructionist position walks the line between what is real and what is not (Wagenaar, 2014). Additionally, some scholars argue that social constructionist research is inherently bound up in an ethical program that is the antithesis of what academic research should be about (Wagenaar, 2014). Whilst this researcher notes the above critiques, the benefits of adopting a social constructionist orientation in the pursuit of the research agenda far outweigh the drawbacks. Policy researchers are increasingly utilising social constructionism as an orientation underpinning public policy research, particularly when endeavouring to study policy responses to environmental challenges. Hajer and Versteeg (2005: 176) state that this comes from social constructionism's appreciation of the 'messy and complex interactions that make up the environmental policy process.'

Social constructionist approaches to understanding environmental issues have been applied in the contexts of global environmental politics (Dryzek, 1997), acid rain (Hajer, 1995), and environmental politics (see for example Sharpe & Richardson, 2001; Hajer, 2006). Research adopting a social constructionist approach highlights the way in which environmental issues and the means to address them are socially constructed by actors (Birmingham, 1998). This does not mean that the environmental problems are imagined, but rather that consideration must be lent to the social, political, cultural and historical processes involved in the

construction of such problems. The adoption of an approach underpinned by social constructionism aligns with the aims of this research, to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy.

### **3.3 A single case study approach**

By virtue of the selection of social constructionism as the philosophical perspective underpinning this research, methodological decisions borne out of the qualitative research tradition have been made. Qualitative research methodologies have proven valuable in uncovering how people make sense of their world, and how people reflect on their experiences (Luzio & Lemke, 2013; Shaw & Riach, 2011). Qualitative methodologies can also play an important role in discovering new variables and relationships, identifying the influence of social contexts, and deconstructing complex phenomena (Birkinshaw, Brannen & Tung, 2011; Miles & Huberman, 1994), all of which are relevant to the current research agenda. Qualitative analysis affords the opportunity to conduct context-sensitive, in-depth research allowing an in-depth understanding of sensemaking and meaning in policy cases (Aukes, Lulofs & Bressers, 2017).

This research employs the use of a single case study, in order to answer the stated research questions highlighted earlier in this chapter. Case study research is particularly useful for those seeking to explore an issue within a bounded socio-cultural context (Ruddin, 2006), such as that which is being explored in this thesis. Flyvbjerg (2006: 241) suggests that the case study ‘is a necessary and sufficient research method for certain important research tasks in the social sciences, and it is a method that holds up well when compared to other methods in the gamut of social science research methodology.’ The case study method has been selected here to consider contextual conditions, in the belief they are highly pertinent to the phenomenon that is the subject of the study (Yin, 2003). Hans Eysenck (1976: 9), who originally regarded the case study as nothing more than a method of producing anecdotes, later stated ‘sometimes we simply have to keep our eyes open and look carefully at individual cases – not in the hope of proving anything, but rather in the hope of learning something.’

Flyvbjerg (2006) suggests that there are three strategies that can be undertaken to sample a single case study. These strategies relate to what Flyvbjerg (2006) termed extreme case studies, critical case studies and paradigmatic case studies. Critical case studies ‘can be defined as having strategic importance in relation to the general problem’ (Flyvbjerg, 2006: 229). Through the strategic selection of a critical case, one can begin to make generalisations of the

sort that ‘if it is valid for this case, it is valid for all (or many) cases’ (Flyvbjerg, 2006: 230). The case study which forms the basis of in this research project meets Flyvbjerg’s (2006) definition of a critical case, as it provides a valuable opportunity to understand how the degradation of NSW fish habitats is framed in stewardship policy, how the solutions to the degradation of NSW fish habitats are constructed, and which stakeholders are attributed blame for enacting the constructed solutions. Within the Australian context, policymakers in NSW have been at the forefront of policy enactments whose primary aims are to mobilise stakeholders to volunteer to ameliorate degraded fish habitats and to increase involvement in participatory stewardship activities. Through the NSW DPI, the NSW Government has been a key driver in establishing networks such as the Fish Habitat Network and the Fishers for Fish Habitat program, both of which are focused on mobilising recreational fishers to increase their involvement in participatory stewardship activities (Fish Habitat Network, n.d; NSW DPI, n.d.-b.). The focus of the NSW DPI on increasing participation in stewardship activities, and the availability of artifacts authored by the NSW DPI which are evidence of pursuit of this aim, provides an excellent context through which to explore the concepts central to this research.

Yin (2004: 251) argues that one of the analytic challenges of case study research is choosing a beginning and end-point, particularly if it is a single case study that is still ongoing. How to define an endpoint, and still be able to identify potential broader lessons is ‘a constant challenge’ (Yin, 2004: 251). Effectively bounding this case study provided to be an interesting challenge. For some time, the NSW DPI has been aware of the disparity between the Australian experience and that in the UK and US in relation to the involvement of recreational fishers in participatory governance activities (Copeland, 2012). With this in mind, the year 2009 has been selected as the commencement point for this case study as this was the year the NSW DPI established the *Fishers for Fish Habitat* program (NSW DPI, n.d.b). The program has the express aim of increasing the involvement of recreational fishers in participatory stewardship activities (Copeland, 2012).

Roughly in conjunction with establishing the Fishers for Fish Habitat program, the Fish Habitat Network was also created, which linked together fishers interested in rehabilitating fish habitat targeted by recreational fishers. Initially based in NSW, the Fish Habitat Network has now expanded to include all mainland states (Copeland, 2012), and it has been cited as a vehicle for successfully building partnerships between recreational fisher groups, facilitating information flow and supporting opportunities to engage the sector nationally (Hames et al., 2014). Partially as a result of being the foundational driver of the Fishers for Fish Habitat program and the Fish Habitat network, policymakers within the NSW DPI have produced a

number of policy artifacts which present a good source of discursive data relevant to the research agenda. Whilst these programs continue to operate, due to the time constraints associated with this research program the researcher has elected to bound the case study between the years 2009 – 2018, in order to obtain a large enough dataset for analysis.

Having established the rationale for the single case study approach, and the sampling rationale, the next section evaluates and justified the selection of interpretive policy analysis as the analytical approach.

### **3.4 The adoption of interpretive policy analysis to address the research problem**

Yanow's (2000) approach to interpretive policy analysis is applied as a device to help frame and interpret the key case study observations. Epistemologically, interpretive research is underpinned by the view that there is meaning to be found in exploring the frames and assumptions through which people experience life—known as phenomenology—and, that these meanings can be uncovered by adopting a set of rules and processes in order to understand them—known as hermeneutics (Yanow, 2006; Dryzek, 1982; Wagenaar, 2014). Interpretive policy research encompasses a range of analytical approaches which are primarily aimed at studying language through narratives and discourses, objects via symbols and programs, and actions via rituals and observations (Yanow, 2000; Wagenaar, 2006; Hendricks, 2007). Through the interrogation of language, representations, and absences, interpretive policy analysis can be used as a mechanism to understand and uncover implicit and explicit policy intentions (Osborne & Grant-Smith, 2017). Interpretive policy analysis provides an alternative to realist accounts of policy (Fischer, 2003). Realist accounts, of which mechanisms like decision trees and cost-benefit analyses are emblematic, tend to favour hegemonic voices and neglect the role that values and norms play in framing policy problems and solutions (Yanow, 2007; Behagel, Arts & Turnhout, 2017). As interpretive approaches seek to overcome this lacuna they align effectively with the social constructionist orientation selected for this research.

At the heart of interpretive policy analysis is a focus on meaning as central to all endeavours (Yanow, 2007). Bevir and Rhodes (2004: 130) suggest that interpretive approaches to 'political studies focus on meanings that shape actions and institutions, and the ways in which they do so.' Yanow (2000) argues meanings (which she defined as encompassing values, beliefs, and feelings) are embedded in policy artifacts (including language, objects and acts). How specific artifacts are deployed has the potential to maintain or change their underlying



meaning, with each artifact potentially having multiple meanings for different actors and parties (Yanow, 2000: 21). Meanings are not just seen to be representations of beliefs regarding political phenomena – in addition, and perhaps more interestingly, they shape them (Wagenaar, 2014). Meanings do ‘not merely put a particular affective or evaluative gloss on things, but [instead are] somehow constitutive of political actions, governing institutions and public policies’ (Wagenaar, 2014: 4).

For interpretivist environmental policy researchers, how society makes sense of an environmental phenomenon is often of greater interest and import than the phenomenon itself (Hajer & Versteeg, 2006). Meanings are situation specific, and thus interpretive policy analysis is highly contextualised, and not usually generalisable beyond the case in question (Yanow, 2007). Critics of interpretive policy analysis often infer this to mean such analysis is subjective, and that it lacks validity, objectivity, and rigour (Hendricks, 2007). Interpretive policy analysts reject this critique, arguing the approach challenges the scientific basis of public management, which often treats the persons on whose behalf policies are created as though they lacked agency (Yanow, 2007). What is of most interest is the constant discursive struggle over the definitions of problems, the boundaries of categories used to describe them, the criteria for their classification and assessment, and the meanings of ideals that guide particular actions (Fisher, 2003).

Hajer & Versteeg (2006) provide an example of dying forests, arguing that the fact forests are dying in and of itself does not contain the reason for the public attention the issue receives. Rather, ‘the fact that they do receive this attention at a specific place and time cannot be deduced from a natural-scientific analysis of its urgency, but from the symbols and experience that govern the way people think and act’ (Hajer & Versteeg, 2005: 175). This observation is demonstrative of the importance of recognising meaning in policymaking, as well as of the influence of discourse in framing issues and determining how policy issues are problematised (Aukes, Lulofs & Bressers, 2017). Interpretive policy analysis seeks to improve policy practice through the study of paradoxes, ambiguities, and meanings embedded in policy artifacts (Hendricks, 2007). By extension, consideration should be given by the interpretive researcher to identifying which elements of policy convey meaning, what actors are framing which elements, and (if applicable) any methods through which the researcher has generated the meaning for analysis (Yanow, 2000).

Interpretive policy analysis has been used in a number of environmental governance contexts, and has provided new ways of thinking about contemporary environmental policy challenges (Behagal, Arts & Turnhout, 2017). Recent studies employing interpretive policy

analysis have included those exploring coastal protection schemes (Aukes, Lulofs & Bressers, 2017); community forest management (Behagel, Arts & Turnhout, 2017); shale extraction (Bomberg, 2017); marine pollution (Grant-Smith, 2015); sustainable transport (Osborne & Grant-Smith, 2017); and urban storm-water management (Travaline, Montalto & Hunold, 2017). Given that interpretive policy analysis has been used to interrogate comparable environmental policy issues, Yanow’s (2000) approach to interpretive policy analysis is an appropriate methodological selection for the purposes of answering the stated research questions in this study. Table 1 provides an outline of the steps of Yanow’s approach to interpretive policy analysis, the details of which are discussed below.

**Table 1:** Steps in Interpretive Policy Analysis (Yanow, 2000: 22)

Step	Action	Completed
1	Identify artifacts which are significant carriers of meaning for a given policy issue, as perceived by relevant policy actors and interpretive communities	✓
2	Identify communities of meaning, interpretation, speech or practice that are relevant to the policy issue under analysis	✓
3	Identify key discourses, or the specific meanings being communicated through specific artifacts and their entailments in thought, speech and act	✓
4	Identify points of conflict and their conceptual sources (affective, cognitive, and/or moral) that reflect different interpretations by different communities	✓
5	Commence interventions/ actions based on context of analysis and role of the analyst: <ul style="list-style-type: none"> <li>a) Show the implications of different meanings and interpretations for policy formulation and/ or action</li> <li>b) Show that differences reflect different ways of seeing</li> <li>c) Negotiate, mediate or intervene in some other form to bridge differences</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>×</li> </ul>

Yanow (2000) suggests that the first step when undertaking interpretive policy analysis is identifying artifacts which are significant carriers of meaning for a given policy issue, as perceived by relevant policy actors and interpretive communities. This step is concerned with the identification and collation of possibly relevant policy artifacts, and narrowing these down to a more manageable corpus for analysis. The term artifacts is used by Yanow to refer to texts, examples of which may include policy documents, social media posts, web pages, and public reports. The process followed to complete this step is outlined later in this chapter.

The second step of Yanow’s (2000) approach to interpretive policy analysis is to identify communities of meaning, interpretation, speech or practice that are relevant to the policy issue that is the subject of analysis. This involves the identification of communities which are creators of the artifacts conveying their views, and mapping how meanings are

conveyed. Yanow (2000) suggests that there are at least three communities of meaning in any given policy situation – policymakers, agency personnel responsible for implementing the policy, and affected citizens. Yanow (2000) suggests that these communities are able to be broken down further into policy-relevant groups which may be of analytic or decision-making concern. Indeed

rather than assuming that policy problems are objectively factual in character and searching for the single correct formulation of a policy statement, interpretive policy analysts might take the alternative view that problem statements are contending interpretations of policy issues made by different communities of meaning (Yanow, 2000: 11).

The application of this step is detailed in Chapter Four, which identifies and discusses the relevant stakeholders, and by extension communities of meaning to the policy issue at hand.

Yanow (2000) argues that following the identification of communities of meaning and relevant artifacts that are significant carriers of meaning, the third step interpretive researchers should undertake is to identify key discourses, or the specific meanings being communicated through specific artifacts and their entailments in thought, speech and act. Yanow (2000) states that this textual dimension of analysis considers the linguistic features of the texts being analysed, including aspects such as vocabulary, the use of jargon, technical words and euphemisms, grammar, cohesion and text structure. The textual description describes the experiential values of the text, to uncover the values, knowledge, beliefs and identities expressed. This step also considers the relational aspects of language features to describe how choices reveal the social relations and position subjects, as well as describing expressive values found in the text to describe the social identities of subject positions. One of the key questions this step seeks to answer is how policy issues are being framed by the parties in the debate, a question which is key to answering the research questions of this research. The concepts of framing, blaming and naming are unpacked later in this chapter. Chapter Four sees the application of this step as it relates to the framing of fish habitat degradation by the NSW DPI, whilst Chapter Five sees the application of this step when exploring how solutions to the constructed problem are framed, and to which stakeholders responsibility is ascribed for enacting policy solutions.

Step Four of Yanow's (2000) approach to interpretive policy analysis involves the identification of points of conflict and their conceptual sources (affective, cognitive, and/or moral) that reflect different interpretations by different communities. Frame conflict may occur due to different interpretive communities focussing cognitively and rationally on differing elements of any given policy issue, due to the differing values that are placed by each

community on these elements. Contending frames entail not just different policy discourses, such as differing language, understandings and perceptions, but also different values and meanings. Yanow (2000) also suggests that frames can be a dynamic analysis of changes in issue framing over time, possibly within a single community of meaning, a point which is particularly relevant for this research. This step will be carried out in Chapter Six of this thesis.

There is a fifth step of Yanow's (2000) analysis, which is focused on intervention strategies. The nature of this intervention will be contextualised based on the research being undertaken, and may also be influenced by the role of the analyst in relation to the policy issue in question. Yanow (2000) argues there are three parts to this step. The first part involves demonstrating the implications of different meanings and interpretations for policy formulations, whilst the second part shows that differences reflect different ways of seeing. The third part is focused on finding ways to bridge differences, through intervention strategies such as negotiations or mediations. This can be achieved through processes such as policy reformulation or reframing. (Yanow, 2000). Yanow (2000) states that the application of her approach may conclude at the fourth step, or may be extended to Step Five. For the purposes of this research, the first two parts of Step Five are carried out in Chapter Six. Given the nature of the methodological decisions made (including the decision to restrict the data collection to naturally occurring data), the third part of Step Five was unable to be carried out during this project.

### **3.5 Framing, naming and blaming**

Conceptually, framing has an established history in public policy studies (Van Hulst & Yanow, 2016). Yanow (2000: 11) argues that a frame sets up 'an interpretive framework within which policy-related artifacts makes sense.' Frames 'direct attention towards some elements whilst diverting attention from others. They highlight and contain at the same time they exclude. That which is highlighted or included is often that which the framing group values' (Yanow, 2000: 11). Policy frames use language, particularly metaphoric language, to shape perception and understanding, and in doing so influence assessments of environmental change, including risk definition, the terms of participation, the range of policy options considered and the nature of the political debate (Juhola, Keskitalo & Westerhoff, 2011).

Taken at its simplest, the concept of framing is concerned with the construction of reality (Dardis, 2007). Policy studies apply frame analysis as a way to study meaning within an issue (Lis & Stankiewicz, 2014). There is a multitude of competing ways (referred to as frames) through which issues may be interpreted. The way these issues are interpreted

influences how the issue is perceived (Dardis, 2007). Through the process of framing, actors highlight different aspects of a situation as relevant, problematic or situation (Van Lieshout et al., 2014). Framing can, therefore, be used as a mechanism for creating and maintaining meaning by actors. Conceptually, framing is used widely in the social sciences (Herzele & Aarts, 2013), and has been used in natural resource management contexts, including studies exploring responsibility sharing in Australian bushfire risk management (McLennan & Handmer, 2012), climate change adaptation (Wallis et al., 2017), and water resource management (Mukhtarov & Gerlak, 2014). Different actors within the natural resource management sphere acknowledge and highlight different aspects of reality as representing either a problem or an opportunity, and thus being an issue requiring policy intervention (Dewulf et al., 2004). Frames are thus a useful tool that allows policymakers to shape meaning (Herzele & Aarts, 2013).

Inextricably linked to the concept of responsabilisation (discussed earlier in Chapter Two) is the concept of blame. If particular stakeholders are being discursively mobilised by policymakers to accept responsibility for remedying a particular problem, then an immediate consideration is whether they are also to blame. Policymakers are able to use discursive strategies such as framing and storytelling in order to implicitly or explicitly attribute blame or praise, as well as suggest causes of harm or success (Van Hulst & Yanow, 2016). An exemplar of this can be seen in the research of Gray (2009: 328), who notes that ‘within the overall process of the individualisation of workplace safety, there is now a fertile environment in place for introducing new sets of governing techniques capable of blaming individuals’.

It should be noted however, that blame allocation is ‘not just about evading or avoiding responsibility... [i]t is also about obscuring the problem’ (Grant-Smith, 2015: 280). Blaming isn’t just done by policy and policymakers; other actors also engage in blaming behaviours in order to resist regulation. This can be achieved through attributing causal responsibility, as well as responsibility for fixing an issue on to other stakeholder groups (Grant-Smith, 2015). Douglas (1995: 67) states ‘blaming and diverting attention is an extremely clever ploy for evading responsibility because, unlike straightforward denial or buck-passing, it appears to be constructive in its search for causes’. The intertwined links between blame and responsibility, and whether there is a dissonance between how each is discursively attributed, is worthy of academic attention not least because of the influence this can have on successful policy implementation. The more severe the event, or the greater the harm, the stronger the impulse by affected parties to assign blame (Anderson, 1991). The logical progression of this is that a message which assigns blame in such a situation will likely be more effective in achieving

desired outcomes, as it aligns with the innate psychological desire to attribute blame (Dardis, 2007). Examples of studies exploring blame within the public policy arena include Orsini's (2002) study of the emergence of blood activism<sup>5</sup> in Canada and Mucciaroni's (2011) study of the framing of gay and lesbian rights and links to morality policy. Given this established history whereby framing, naming and blaming has been applied to public policy issues, it was deemed appropriate to employ a similar approach whilst undertaking this research.

### **3.6 Analysis of artifacts as carriers of meaning**

Documentary analysis of naturally occurring data is a commonly used method of data collection, analysis, and interpretation in interpretive policy analysis (Wagenaar, 2014). Texts can and should be regarded as important sources of data in their own right, due to being naturally occurring and influential in how people perceive the world around them (Silverman, 2006). Importantly, texts should not be seen as presenting unproblematic truths, rather it should be appreciated that documents construct particular types of representation which are worthy of analysis (Atkinson & Coffey, 2004). Whilst documentary analysis usually serves as a complement to other research methods, it may also be applied as a stand-alone method when conducting studies within an interpretive paradigm (Yanow, 2000; Bowen, 2009). This is the approach adopted for this research project.

The scope of this research was restricted to analysing naturally occurring data in the public domain which were either explicitly or implicitly authored by the NSW DPI between the years 2009–2018. The scrutiny of government texts is a valuable exercise, not least because 'organisations and policy decisions are dependent on 'writing' in order to regulate and legitimise their functions' (Jacobs, 1999: 204). The decision to only select publicly available texts was made as the researcher wished to focus on the way the issue and responsibilities were framed for a public audience.

The researcher collated a variety of artifacts relevant to this research, including policy documents, legislative and regulative texts, government reports, brochures, social media posts and other DPI-authored material, in a process of cyclical corpus building (Mautner, 2008). The artifacts were discovered by conducting systematic searches of the NSW DPI website, Fish Habitat Network website, NSW DPI Facebook page and Fish Habitat Network Facebook page, as well as various other state government websites, Hansard and Austlii (to access relevant

---

<sup>5</sup> The term blood activism is used by Orsini (2012) to describe the range of collective challenges and political action that arose among victims of Canada's tainted blood scandal in the 1990's, in which patients (mostly haemophiliacs) in receipt of blood transfusions were infected with HIV/AIDS and/ or Hepatitis C.

legislative and regulatory texts). Texts were selected where the primary focus was on the construction of the problem of fish habitat degradation in the NSW fishery, or on the framing of solutions to respond to the stated constructed problem. A purposive method of text selection was utilised, which attempted to capture the important texts – ‘those which are widely distributed, that are associated with changes in practices, or that were produced in reaction to a particular event’ (Phillips & Hardy, 2002: 73). Text selection was complete when it was judged that sufficient data had been collated to construct an interesting argument (Wood & Kroger, 2000). Taken together, the collated corpus of documents provides a useful insight into the NSW DPI’s strategic aims. The various sources of the texts selected were used to reduce potential sources of error, and calibrate the findings of this research. Forty artifacts deemed to be significant carriers of meaning for the policy issue at hand were identified. Details of the texts selected for analysis are provided in Appendix One.

Once the corpus of texts was collated, the data was analysed using the remaining steps in Yanow’s (2000) approach to interpretive policy analysis. Data analysis in qualitative research is iterative and cyclical (Lincoln & Guba, 1985). The aim of data analysis in a qualitative study such as this one is to uncover categories, themes, and relationships that have previously remained unseen (McCracken, 1998). Key to this process is the identification of themes through careful reading and re-reading of the data, in order to recognise patterns and identify emergent themes that become categories for analysis (Fereday & Muir-Cochrane, 2006).

The analysis of the data occurred in phases. Firstly, emergent themes were identified from the corpus of collated documents. The coding process itself involved recognising an important moment and then encoding it prior to lending thought to its interpretation. The aim of this was to ensure that quality codes were being used which captured the qualitative richness of the selected texts (Fereday & Muir-Cochrane, 2006). This process was undertaken several times, using a mix of open and axial coding (Cresswell, 2013; Babbie, 2013). In order to do with this, the selected texts were uploaded by the researcher into NVivo. An iterative and reflexive coding process such as this is critical to ensuring the trustworthiness of the data. From this process, relevant themes were identified, and linked back to relevant theory in order to explain the impact of the discursive strategies of the NSW DPI used to mobilise non-state actors to increase their involvement in participatory stewardship activities.

Evidence of the iterative and reflexive process undertaken is most evident in Chapters Four – Six, in which the third and fourth steps, and first two parts of Step Five of Yanow’s (2000) approach were applied to the case. In these chapters, the emergent themes uncovered

during the documentary analysis are identified and discussed, and clear linkages are provided to demonstrate the interplay between theory and data.

### **3.7 Verification and ethics waiver**

In order to ensure the outcomes of this research were trustworthy, the researcher satisfied the four criteria used to measure successful qualitative research: confirmability, transferability, dependability, and credibility (Guba & Lincoln, 1994). The researcher held regular meetings with their supervisors throughout the completion of this project to discuss the themes that emerged from the data, in order to ensure the findings were credible. The researcher has also clearly documented the process followed when applying Yanow's (2000) approach for interpretive policy analysis. The application of an accepted approach such as this demonstrates the dependability of the outcomes of the research and also enables other researchers to apply the findings to other contexts and settings.

The data collection did not involve human subjects as all data was available in the public domain. None of the websites used to locate the selected texts required users to be logged in to access the documentation; any person who was not in possession of an account or log-in details would, therefore, be able to locate the texts. As such, this research meets the criteria for a negligible risk research project as defined in paragraph 2.1.7 of the National Statement on Ethical Conduct in Human Research. Due to the fact this research involved the use of existing collections of data or records it was confirmed as being exempt from the Queensland University of Technology's Human Research Ethics Committee's review, approval, and monitoring. A copy of the ethics waiver provided for this research is provided in Appendix Two.

### **3.8 Conclusion**

This chapter provided a justification for the methodological decisions made during the course of completing this study. A social constructionist orientation was adopted, given its appreciation for the messy and complex interactions that can make up the environmental policy process (Hajer & Versteeg, 2005). The adoption of a social constructionist orientation aligned with the methodological selection of Yanow's (2000) approach for interpretive policy analysis, as well as for the selection of a single case study. Interpretive policy analysis is valuable because it allows for the improvement of policy practice through studying its ambiguities and paradoxes, and making senses of the various meaning embedded in texts, action, and language (Stone, 2002). This chapter also included the first completed step of Yanow's (2000) approach for interpretive policy analysis. The corpus of collated texts is provided in Appendix One, with



the justification provided in Chapter Three for how and why these texts were selected. The next chapter (Chapter Four) focuses on the construction of the problem of fish habitat degradation and looks at how the NSW DPI attributes blame for the degraded state of fish habitats within NSW. In doing so, it applies the second and third steps of Yanow's approach for interpretive policy analysis to the case study.

# Chapter Four – Framing the Problem of Fish Habitat Degradation

## 4.1 Introduction

This chapter explores how environmental issues have been problematised in policy artifacts, and highlights the trend towards modes of governing through non-state actors. One of the strategies policymakers seek to achieve this through is the use of discourse. Discourses can be understood as providing a frame which generally incorporates a diagnosis of the problem, as well as the attribution of blame (Pyysiäinen, Halpin & Guilfoyle, 2017). Chapter Four builds on the earlier theoretical and methodological discussions and considers how the NSW DPI constructs the problem of fish habitat degradation in policy documents, and to whom it attributes blame for this degradation. This analysis is foregrounded by a brief overview of the mechanisms utilised to regulate the state's fisheries, with a particular focus on those mechanisms relating to fisheries conservation and habitat rehabilitation. This discussion provides an understanding of the socio-historical and regulatory context required to conduct the analysis of the more recent policy artifacts (2009–2018) using interpretive policy analysis. By mapping the communities of meaning within these policy artifacts, this chapter identifies how the policy problem of fish habitat degradation in been framed and which policy actors have been attributed as causing this degradation. In doing so, this chapter answers the first research question: How is the degradation of NSW fish habitats framed in stewardship policy?

## 4.2 The regulation of the fishery in NSW

Attempts to regulate fishing activity in the Australian context date back to 1865, with the passing of the first *Fisheries Act* by the NSW Parliament. Popularly known as the 'Dick Driver's Act' after its originator, The Honourable Richard Driver MLA<sup>6</sup>, the legislation attempted to address the unfettered fishing of the waters surrounding the greater Sydney area. Fishers at the time used small mesh nets that caught large numbers of juveniles, as well as mature fish, thus disrupting the available breeding stock (Wilkinson, 2004). This activity had a noticeable impact on the supply of fish in waters around Sydney and Newcastle and aroused

---

<sup>6</sup> The Honourable Richard Driver MLA (1829 – 1880) was an influential solicitor and politician in NSW. A radical and fervent patriot, he emerged as one of the chief law reformers during his twenty years in the NSW Parliament. A member of the Royal Sydney Yacht Club and active in the administration of rowing, sailing and horse-racing, he is considered one of the most effective improvers of Sydney of his time (Australian Dictionary of Biography, 2018).

concern among commercial fishers and the general public. This initial regulation focused on the size of nets that were able to be used by fishers, as well as the locations they were able to be deployed. This legislation was ineffective, as fishers only took the necessary precautions to avoid detection rather than actually changing their fishing practices<sup>7</sup> (Pepperell Research & Consulting Pty Ltd, n.d; Wilkinson, 2004). This lack of compliance continued over the next twenty years, and as a result of continued perceived overfishing in the absence of effective legislative control, a Royal Commission into the Fisheries of NSW was convened between 1878 and 1880.

One of the key objectives of the Royal Commission was to consider how fisheries could be managed in a way that ensured their ongoing utility. This is evident from the aims of the Royal Commission, which were:

to make a diligent and full investigation into the actual state and prospect of the Fisheries of the Colony, the best means of developing and preserving them, the expediency of encouraging Pisciculture, or of supplementing the natural supply by the introduction and acclimatisation of useful foreign species and upon all matters bearing upon this subject (NSW Parliament, 1880: 4)

The main outcome of the Royal Commission's report to the NSW Parliament was the passage of the *Fisheries Act 1881* (NSW), which among other things prohibited the use of stake-nets (considered to be one of the key factors behind the steep decline in fish populations). The first Fisheries Department was also formed and charged with overseeing and implementing the new regulatory regime (Pepperell Research & Consulting Pty Ltd, n.d.). Whilst the aims of the Royal Commission referred to developing and preserving the state's fisheries, the key focus was on ensuring fish stocks remained at economically viable levels. There was little consideration given to issues including habitat destruction, pollutants or other environmental impacts as a result of human activity.

Through the nineteenth and twentieth centuries, policymakers continued to grapple with balancing the economic, environmental and social challenges born out of managing continually overfished fisheries. In 1953 for example, a report from a NSW Parliamentary Committee on Fish Marketing stated: 'A major problem of the NSW fishing industry may be accepted as conservation and protection of the fishing grounds. This involves a degree of oversight and control over the operations of... fishermen' (NSW Parliament, Committee on Fish Marketing 1953 in Wilkinson, 2004). For the most part, regulatory mechanisms were primarily aimed at the commercial fishing sector, with priorities including ensuring grounds were not overfished,

---

<sup>7</sup> Interestingly, Australian boaters still behave this way; research suggests recreational boaters remain "suspicious and dismissive of attempts to regulate their boating practices" (Grant-Smith, 2015: 270).

as well devising strategies to shift part of the costs for administering the commercial fishing industry from the state to the industry itself. From the 1970s onward, increasing concern for the protection of the environment led to additional protective measures being implemented (Rogers et al., 2016). These measures were implemented with the passage of the *Environmental Planning and Assessment Act 1979*, the introduction of a specific planning policy to constrain activities on coastal wetlands in 1985 (see the *State Environmental Planning Policy No. 14 Coastal Wetlands*) and the more forceful enforcement which was borne out of the passage of the *Fisheries Management Act 1994* by Fisheries NSW (hereafter referred to as the *Fisheries Management Act*) through the assessment of potential development impacts on fish habitat (Rogers et al., 2016).

Prior to the implementation of the *Fisheries Management Act*, commercial fishers were able to operate on the basis of relatively unrestricted entry into the industry, and with relatively unrestricted access to fishing grounds generally (Wilkinson, 2004). With the passage of the *Fisheries Management Act*, the regulatory landscape fundamentally shifted. The passage of the *Fisheries Management Act* enshrined in legislation the commitment of the state to conserve, develop and share the fishery resources of the state for the benefit of present and future generations (see s.3(1)). In order to facilitate this, and attempt to address the issue of depletion of fish stocks, the concept of fishing rights was introduced for the commercial fishing industry. Whereas previously fish in the sea had been viewed as a common resource, available for anyone to catch, fish were now turned into a property that could be bought or sold (Wilkinson, 1997). The *Fisheries Management Act* provided for the establishment of a Total Allowable Catch Committee that determined the total allowable catch in each of the commercial fisheries in NSW (Wilkinson, 2004: 2). Commercial fishers were only able to operate by buying shares in a fishery; in exchange, they received an allocation of fish that were able to be caught. The intention of this was to ensure that fish stocks were not depleted, and that the fisheries were managed in accordance with the objects of the *Fisheries Management Act*.

As far back as the 1930's, various governments in NSW have pointed to the disconnect between the administration costs of, and revenue raised from the commercial fishing industry (Wilkinson, 2004). Recovering the costs of administering commercial fishing from those participating in the industry has been a long-term aim of governments at both the state and federal level. In a speech to the NSW Parliament, the then fisheries minister (The Honourable

Bob Martin<sup>8</sup>) stated ‘the costs of fishery management... are not insubstantial... the Act clearly requires both management charges and a community contribution’ (Second Reading Speech, *Fisheries Management (Amendment) Bill 1997* in Wilkinson, 2004: 26). The intention here was to delegate the responsibility for the costs of regulating the commercial fishing industry back to the industry, in essence, to ensure that it is self-funded. The *Fisheries Management Act* (s.233) also established the Commercial Fishing Trust Fund. A number of the fees levied on commercial fishing activities were directed to be paid into the trust, with the funds generated used to contribute to the costs of managing commercial fisheries, carrying out fisheries research, undertaking compliance and enforcement activity, and of consultative arrangements with commercial fishers (see s.236 of the *Fisheries Management Act*).

At roughly the same time as the NSW government was fundamentally altering commercial fishing, it began to elevate the status of recreational fishing within government policy. The Minister for Mineral Resources and Fisheries at the time, Eddie Obeid<sup>9</sup>, highlighted the NSW Government’s view on the importance of recreational fishing:

The government’s role in fisheries is to... develop and share our fisheries resources. Consistent with those objects... the value and importance of recreational fishing is recognised. Recreational fishing creates a flow of wealth from towns and cities to country areas. The best estimates are that 2.5 million people fish at least once a year in New South Wales. It is now time to... [enhance] ... recreational fishing. The stimulus to regional economies flowing from promoting recreational fishing ... is expected to encourage local businesses and tourism. (Wilkinson, 2004: 34-35)

This marked an important discursive shift, with policymakers increasingly beginning to focus on the impact of recreational fishing, as well as the opportunities those who partake in the sport present to achieving conservation aims. The term recreational fishing captures non-commercial fishing activities which are not the fisher’s primary resource for meeting their essential nutritional requirements (Arlinghaus & Cook, 2008). As an activity, recreational fishing is extremely popular, with approximately ten per cent of the global population participating in it in any given year (Granek et al., 2008). Participation rates in Australia are slightly above the global average, with around three million Australians participating in the activity each year (Copeland, 2012; Barwick et al., 2015). The recreational fishing industry makes a significant

---

<sup>8</sup> The Honourable Robert (Bob) Douglas Martin (1945 - ) was Minister for Mineral Resources and Minister for Fisheries in the Carr Labor Government between 4 April 1995 – 8 April 1999). He was a manager with NSW State Fisheries from 1970 until his entry to Parliament in 1988, and was an avid recreational fisher (Parliament of NSW, n.d.a).

<sup>9</sup> Mr Edward (Eddie) Moses Obeid (1943 - ) was Minister for Mineral Resources and Minister for Fisheries in the Carr Labor Government between 8 April 1999 – 2 April 2003 (Parliament of NSW, n.d.b). Mr Obeid was stripped of the honorific bestowed upon members of the NSW Legislative Council following his conviction on the charge of misconduct in public office (Silmalis, 2014).

contribution to social and economic life in Australia, with the activity contributing an estimated \$1.8 billion per annum to the national economy and sustaining around 90,000 jobs (Department of Agriculture & Water Resources 2015). Recreational fishers themselves have become powerful stakeholders in fisheries management, as is evidenced by their influence over the policy process governing marine parks in NSW.

#### **4.2.1 The NSW Marine Parks Fisher Rebellion**

In 1998 the Governments of Australia with marine coasts undertook to establish a National Representative System of Marine Protected Areas (NRSMPA) as a uniform approach to ensure the conservation of marine biodiversity (Gladstone, 2014). The purpose of this was to ensure compliance with national goals for sustainable development, biodiversity conservation, and international obligations under the Convention on Biological Diversity (Gladstone, 2014). Each jurisdiction was required to establish a system of marine-protected areas, of which there were three types: aquatic reserves, national parks and nature reserves, and marine parks (NSW Parliament, 2010). The primary goal of the NRSMPA is to ‘contribute to the long-term ecological viability of marine and estuarine systems, to maintain the ecological viability of marine and estuarine systems, and to protect Australia’s biological diversity at all levels’ (ANZECC, 1998).

The marine environment in NSW has been divided into five meso-scale bio-regions that form part of the framework for implementing the NRSMPA (Gladstone, 2014). The policy of the (at the time) NSW Labor Government was to establish a network of marine parks that met the objectives of the NRSMPA, as well as state-level and local-level needs. This network of marine parks was supplemented by a number of smaller aquatic reserves and marine national parks (Voyer, Gladstone & Goodall, 2012). Six large marine parks were established covering thirty-four per cent of NSW state waters: Jervis Bay (1998), Solitary Islands (1998), Lord Howe Island (1999), Cape Byron (2002), Port Stephens- Great Lakes (2005) and Batemans (2006) (Gladstone, 2014). The aim of establishing the marine parks was to ensure that a comprehensive, adequate and representative sample of marine biodiversity was captured (NSW Parliament, 2010).

The planning process for all six marine parks in NSW was plagued with conflict and resistance from local communities. Opponents questioned the necessity for no-take sanctuary zones when, in their eyes, there was no evidence that recreational fishing was a risk to marine biodiversity, and other activities with much greater impacts (such as pollution), were not being addressed through the creation of marine parks and no-take zones (Gladstone, 2014). Scientific

arguments supporting the creation of no-take zones were challenged extensively in the media, online forums, at public meetings and in scientific conferences (Gladstone, 2014). Concerns were also raised about the impact of the creation of the marine parks on effective fisheries management, as well as the social impact on vulnerable groups such as the poor, disabled and elderly who may lack the mobility to find alternate fishing grounds (Gladstone, 2014). According to a study of news articles about the Port Stephens-Great Lakes and Bateman Marine Park planning processes, government, conservation groups, and fishing groups were the dominant voices in the media. Scientists, on the other hand, were prominent voices in less than five per-cent of news articles (Voyer, Dreher, Gladstone & Goodall, 2013).

In response to this ongoing criticism, particularly from recreational fishing groups, the NSW Government commissioned a review of the science which justified the creation of the marine park network (Fairweather, Buxton & Robinson, 2009). One of the recommendations of this review was to ensure that socio-economic studies were integrated with biophysical studies to improve the effectiveness of marine park management. The review highlighted the importance of focusing on the importance of marine biodiversity in and of itself, rather than focusing on any potential spinoffs for fishing. The review also recommended the government be more assertive about the science and research behind the network of marine parks in NSW, whilst still acknowledging areas of disagreement or uncertainty in the science itself (Fairweather, Buxton & Robinson, 2009).

The year 2011 saw a change of government in NSW, with the public debate around marine parks being particularly heated in the months preceding the election (Gladstone, 2014). The newly elected O'Farrell Liberal/National Government implemented a number of policy changes to the management of marine parks, including 'transferring responsibility for their management from the environment to the primary industries portfolio, maintaining a five year moratorium on the creation of new marine parks declared by the previous government, reversing the changes that were meant to be implemented in the Solitary Islands Marine Park, and declaring a five year moratorium on zoning plan reviews' (Gladstone, 2014: 290). Further, following the commission of and report by an Independent Scientific Audit of Marine Parks in NSW in 2011, in March 2013, the NSW Government: disbanded the NSW Marine Parks Authority and established two new advisory bodies, announced an immediate amnesty on line fishing in no-take zones on beaches and headlands within marine parks, undertook a threat and risk assessment for the NSW marine estate, and maintained the moratorium on the creation of new marine parks (Gladstone, 2014).

The regulatory approach to marine conservation in NSW softened in a very short period of time, in no small part due to the pressure exerted by recreational fishers and associated lobby groups. Moreover, the changing focus from conservation to risk management spread to other jurisdictions in Australia; Queensland, Tasmania and South Australia all amended their approach to marine park management following the decisions in NSW. Gladstone (2014) suggests that the key forces which drove these changes included: perceptions among stakeholders that the planning process was focused on unrealistic no-take zoning targets, that social impacts went unacknowledged, the impact of key recreational fishing and fisheries science voices, and doubts which were cast over the legitimacy of the science. The relevance of this to the research being undertaken here links back to the response of relevant non-state actors to what they perceived to be a heavy-handed, coercive regulatory push by the State to encroach on their interests. For myriad reasons, these heavy-handed, coercive tools in the regulatory tool-box were not effective in achieving stated environmental policy aims, and this failure has arguably influenced at least in part the current NSW regulatory model, and the strategies being used to mobilise non-state actors to involve themselves in participatory stewardship activities.

#### **4.2.2 Regulation of recreational fishing today**

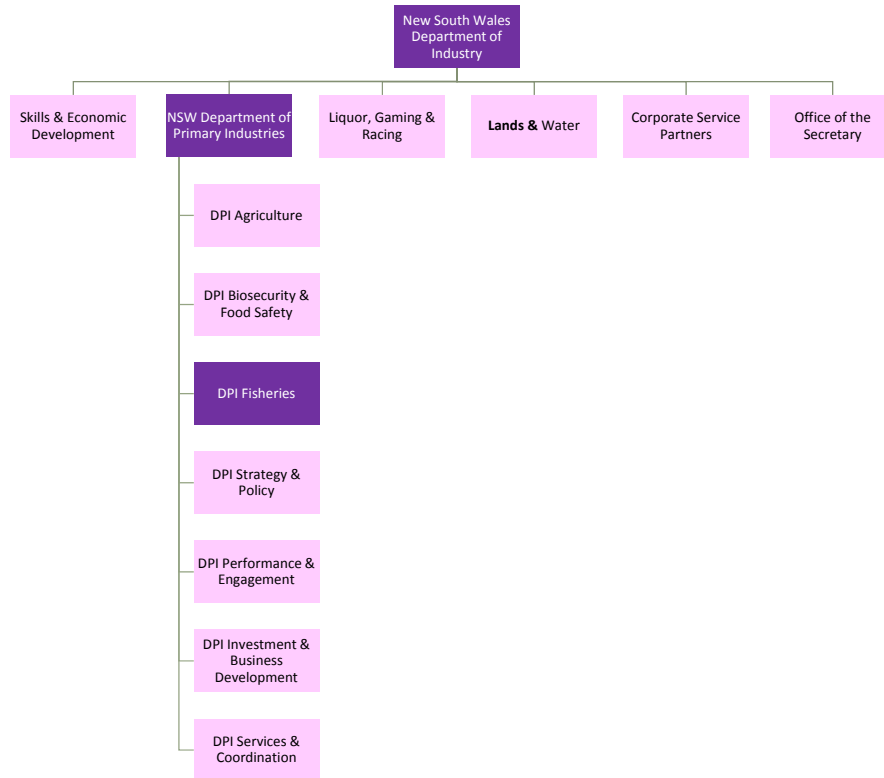
The most recent figures suggest that approximately 17.1 per cent of the population of NSW—or around one million people—participate in recreational fishing each year (NSW DPI, 2016b). This figure refers to the number of people in NSW who hold a recreational fishing licence, and whilst it is an approximation it does not capture pensioners, children, and Indigenous people, as they are exempted from requiring a licence (NSW Parliament, 2010). Participants are demographically diverse: around one in four males, and one in ten females in NSW fish recreationally at least once per year, with participation rates outside the Sydney metropolitan area being almost double of that within it (NSW DPI, 2009; NSW DPI, 2016b). At 4.3 per cent, membership of fishing clubs in Australia is quite low when compared with that in other predominately Anglo countries (Copeland, 2012). Recreational fishers appear to prefer fishing in estuarine and near coastal waters, with 76 per cent of fishers utilising these habitats to undertake the activity. Around twenty per cent of fishers utilise inland fish habitats, whilst four per cent fish offshore (Copeland, 2012). There are six main components to the recreational fishery: freshwater, estuarine and coastal, diving, sportfish, charter boat and gamefish (NSW Parliament, 2010). Most fishers fish less than twelve times per year, with only 26 percent of



recreational fishers in Northern NSW (for example) fishing on a daily or weekly basis (Baker, 2010).

The *Fisheries Management Act* regulates recreational fishing by virtue of catch controls (including bag and size limits), restrictions on the type of gear able to be deployed by fishers (fish traps and nets are banned), the introduction of closed areas and seasons, and bans on catching certain protected species (NSW Parliament, 2010). Recreational fishers were progressively required to hold a recreational fishing licence; in 1998 the fee was introduced for freshwater fishing, and in 2001 fishers in saltwater environments were also required to hold the recreational fishing licence (Wilkinson, 2004). The establishment of this fee was consistent with one of the objectives of the *Fisheries Management Act* (s.10.3.e) - that being to promote quality recreational fishing opportunities. The revenues collected through the levying of this fee are directed towards programs designed to improve the recreational fishing experience, with monies paid into either the Freshwater or Saltwater Recreational Fishing Trusts (NSW DPI, n.d.-g).

As shown in Figure 3, the NSW DPI is nested within the New South Wales Department of Industry (NSW Department of Industry, 2018). The core functions of NSW DPI relate to the regulatory oversight of primary industries within NSW, and to developing strategies to drive economic growth across the state (NSW DPI, n.d.-e). NSW DPI (n.d.-e: para 3) ‘manages a broad range of initiatives from resource to industry, including natural resource management, research and development, pest and disease management, food safety, industry engagement, and market access and competition.’ The Fisheries branch of the NSW DPI— NSW DPI Fisheries—is tasked with ‘support[ing] economic growth and sustainable access to aquatic resources through commercial and recreational fisheries management, research, aquaculture development, habitat protection and rehabilitation, regulation and compliance (NSW DPI, 2017: para 7).



**Figure 3:** Current structure of the NSW Department of Industry (NSW Department of Industry, 2018)

NSW DPI Fisheries is responsible for administering the Fisheries Management Act, and primarily responsible for administering the *Marine Estate Management Act 2014* (NSW DPI, 2016b). Additional legislation which relates to the conservation of fish habitats includes the *Threatened Species and Conservation Act 1996*, the *Environmental Planning and Assessment Act 1979* and the *Native Vegetation Act 2003*. The NSW DPI is also responsible for enforcing a range of NSW and Commonwealth fisheries statutes and their subordinate regulations (NSW DPI, 2016b). The NSW DPI has responsibility for overseeing the state’s wild harvest commercial fishing industry. This industry is worth \$80 - \$90 million per annum at first point of sale, involving around one thousand commercial fishing businesses (NSW DPI, 2016b).

Recognising and understanding the regulatory terrain—where policymakers are situated, what the key objectives of their departments are, and what pieces of legislation their departments have carriage of—is important knowledge for the purposes of this research. This is also important to keep in mind as relevant communities of meaning relevant to the policy issue under scrutiny are identified, in order to complete the second stage of Yanow’s (2000) approach for interpretive policy analysis.

### **4.3 Constructing fish habitat degradation as a policy problem**

NSW has a diversity of fish habitats, including the presence of cooler high country, warm interior freshwater systems, a narrow continental shelf, and coastline interspersed with beaches, estuaries and rocky headlands (NSW Parliament, 2010). There have been numerous studies conducted which suggest there has been significant loss and degradation of fish habitats in NSW since European settlement (Balcombe et al., 2011; Rogers et al., 2016). For example, the extent of fish habitat in coastal NSW that is either degraded or completely lost since European settlement has been calculated at 62, 258 ha, which equates to over 70% of the total area at the time of European settlement (Rogers et al., 2016). In an assessment of fish species, hydrology and macro-invertebrates, Davies et al. (2010) found twenty out of twenty-four river basins to be in poor or very poor condition. Up to 97 per cent of assessed river length in NSW has been modified, and fish passage in many rivers and creeks has been blocked by floodgates, weirs, causeways, and impoundments, the combined impact of which has a negative influence on levels of production of fish species (NSW Parliament, 2010).

There over one thousand species of fin fish in NSW, with an additional tens of thousands of species of crustaceans, aquatic molluscs, beachworms, aquatic insects and other aquatic invertebrates, all of which are classified as fish under the Fisheries Management Act (NSW DPI, 2013a: 4). The loss and degradation of fish habitat has negatively influenced marine populations in ecosystems across the state, due to factors including changes to natural flow of waterways, habitat degradation and barriers to biological connectivity (Balcombe et al., 2011; Pratchett et al., 2011; Sheaves et al., 2014). The impacts of thermal pollution and flow modifications have been implicated in the demise of native fish in the Murray-Darling Basin, due to impacts on physiology, spawning and movements (Gehrke & Harris, 2001; Grouns, 2008; Balcombe et al., 2011). Native fish levels of some species have been estimated to be around ten per cent of pre-European levels, and several marine and estuarine species are now listed as threatened or protected (Balcombe et al., 2011). In short, the entire ecosystem is under significant pressure.

A combination of increasing urban populations, combined with pressures from industrial and agricultural interests in coastal zones has resulted in ongoing degradation of estuaries and embayments (Creighton et al., 2014). There are concerns that discrete, additive and often interacting forces have often gone unquantified (Creighton et al., 2014). Climate change is widely accepted as one of the most important determinants in declines in global marine biodiversity and ecosystem function, with influences on land use, atmospheric CO<sub>2</sub>

concentration and nitrogen deposition (Balcombe et al., 2011). A 2008 report to the Natural Resource Management Ministerial Council identified the highest priority five broad-scale threats to marine diversity (and by extension, fish habitats): the effects of climate change, resource use, land-based impacts, marine bio-security (i.e. introduced marine pests) and marine pollution (Marine Biodiversity Decline Working Group, 2008). These same threats were also reported in the 2010 review of Recreational Fishing in NSW (NSW Parliament, 2010). During this 2010 NSW Parliamentary Enquiry conducted into recreational fishing in NSW, representatives from the recreational and commercial fishing sectors emphasised their view that land-based impacts were the greatest threat to marine biodiversity (NSW Parliament, 2010). Both stakeholder groups contended at the time that the NSW Government was focused too heavily on the establishment of marine parks, and increased regulation as the panacea, thus neglecting more serious threats (NSW Parliament, 2010). Examples were provided of large-scale fish kills, which were attributable to the impact of acid sulfate soils following floods. It was estimated that the number of organisms killed in these instances was three to five times greater than the overall commercial catch (NSW Parliament, 2010). Recreational fishers argued that their impact on fish stocks and marine biodiversity was minimal and sustainable when compared to other threats, most noticeably commercial catch and land-based impacts (NSW Parliament, 2010).

The role of recreational fishing in fish habitat degradation is less understood than that of commercial fishing, and resultantly there is significant divergence in views on the level of threat proposed by recreational fishing activities to marine biodiversity, fish stocks and by extension fish habitat (Young, Foale & Bellwood, 2014; NSW Parliament, 2010). The impact of recreational fishing on fish habitats, however, is increasingly being explored in the literature, and subsequently recognised by the scientific community (Granek et al., 2008; Frawley, 2015). Within the Australian context, there has also been some research which has considered the ecological impacts of recreational fishing (for example Midgley, 2016; Kearney, 2001).

Whether a party accepts the scientific evidence regarding the causes of, and threats to, fish habitat degradation in NSW may be influenced by their broader stake in the issue. Recreational fishers, for example, will often argue that their impact on fish stocks and fish habitat is negligible when compared to other threats, including when considering the activities of the commercial fishing sector and land-based impacts from groups such as farmers and developers (NSW Parliament, 2010). Whilst many recreational fishers promote the small size of individual catches, the cumulative catch of recreational fishers, combined with the commercial fishing take arguably negatively influences overall fish stocks (McPhee, Leadbitter

& Skilleter, 2002; NSW Parliament, 2010). Impacts on fish include pressures on the size and structure of populations (Burgin, 2017). In addition to the influence on fish stocks, there is a body of evidence identifying recreational fishers as a cause of fish habitat degradation, through discarded nylon line, lures and plastics lost in waterways, damage caused through boat use and associated effluence discharge, and other environmental pressures which are associated with camping and four-wheel driving either in or near fish habitats (NSW Parliament, 2010; Burgin, 2017; Cooke et al., 2013; Frawley, 2015). There is also a level of mortality associated with catch and release methods of fishing (NSW Parliament, 2010). It is against this contested background, and the challenges it presents, that governments have grappled with how to ensure the ongoing social, economic and environmental utility of the fisheries of NSW.

#### **4.4 Identifying communities of meaning in fish habitat policy**

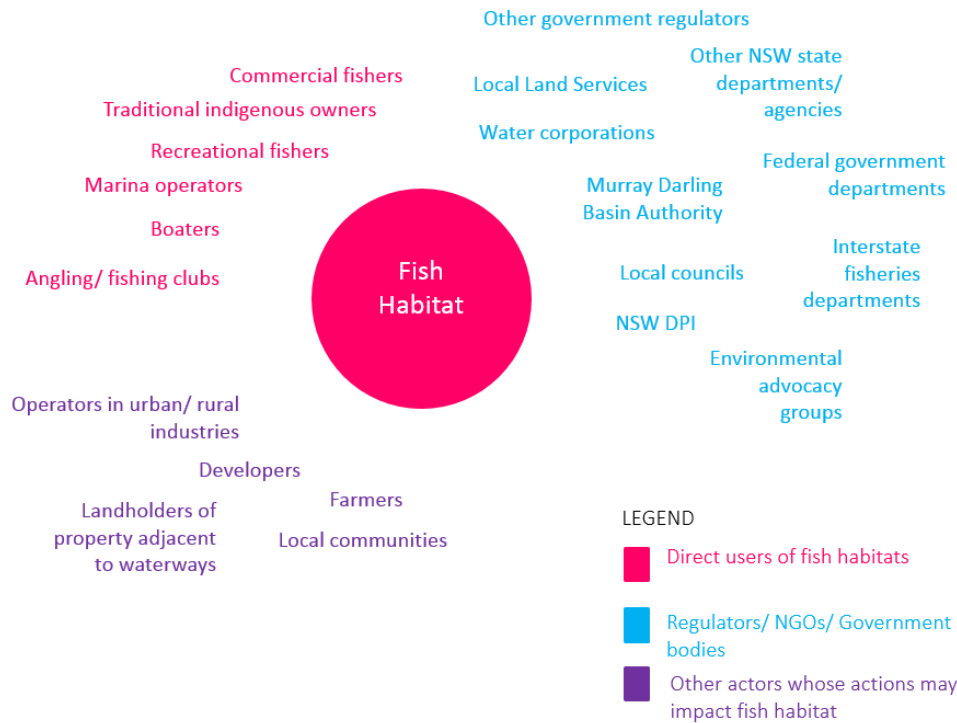
In addition to understanding the regulatory mechanisms underpinning fisheries management in NSW, it is important a clear understanding of relevant communities of meaning, or stakeholders in the issue at hand is developed. Freeman (1984: 46) defines a stakeholder as ‘any group or individual who can affect or is affected by the achievement of the organisation’s objectives.’ Variants on this definition have been proposed in the literature, and can be considered based on how inclusive they are (Bryson, 2004). Definitions range from only considering stakeholders to be those people or groups who have the power to directly affect the organisation’s future (see for example Eden & Ackermann, 1998; Mitchell et al., 1997; Jones & Wicks, 1999) to those which consider a broader array of people, groups or organisations as stakeholders, including those nominally without such power (see Nutt & Backoff, 1992; Johnson & Scholes, 2002; Bryson, 2004). The decision of how widely or narrowly to define stakeholders is consequential, as it influences who and what counts (Bryson, 2004). Given the nature of public policymaking, adopting a social justice perspective means that it is prudent to commence the stakeholder identification process from an inclusive place, in order to ensure the interests of those without power may be considered (Bryson, 2004). This research adopts the definition proposed by Bryson (1995: 27) which is ‘any person, group or organisation that can place a claim on the organisation’s attention, resources or output, or is affected by that output.’

Stakeholder analyses (which are a useful tool in identifying communities of meaning) are particularly relevant when considering public policy issues, including those relating to natural resources management, as such issues affect numerous people, groups, and organisations (Bryson, 2004). Determining how issues may be problematised, and what

solutions may work should be considered part of the problem-solving process, one in which taking stakeholders into account is crucial (Bryson, 2004). The trends which were discussed in Chapter Two – the adoption by many governments of the principles of neoliberalism, with the resultant emphasis on deregulation, markets, participatory governance mechanisms and voluntarism all imply there is a need for greater consideration to be given to a wider array of stakeholders (Peters, 1996; Bryson, 2004).

As the public debate and subsequent policy shifts surrounding marine parks in NSW discussed earlier in this chapter demonstrate, paying attention to stakeholders is important for a number of reasons. There are significant implications for public sector organisations if key stakeholders are not managed effectively. The resulting implications may include the undermining of new initiatives, altered budgets, as well as concerted campaigns which may culminate in a loss of power (Bryson, 2004). Employing effective stakeholder management techniques is also crucial when assessing and enhancing the political feasibility of initiatives instigated by policymakers, especially when it comes to articulating and achieving outcomes in pursuit of the common good (Eden & Ackermann, 1998; Bryson et al., 2002; Bryson 2004). Additionally, attending to stakeholders is valuable in ensuring the principles of natural justice have been adhered to, principles which are the cornerstone of good public administration practices (Eden & Ackermann, 1998; Bryson, 2004). This does not, of course, mean that all possible stakeholders can (or potentially ever will) be satisfied even with the execution of the most effective stakeholder identification and engagement techniques. Rather, this suggests that key stakeholder needs should be either satisfied or wholly taken into account. The choice of which stakeholders are identified as key to any given policy issue is a decision that involves judgement by policymakers (Bryson, 2004).

There are a number of models which can be used to identify and manage key stakeholders. For the purposes of this research, Bryson's (1995: 71-75) basic stakeholder analysis technique was utilised as the conceptual framing device to identify communities of meaning relevant to the policy issue of degradation of fish habitats. In order to capture as many stakeholders as possible, Krick et al.'s (2005) dimensions for stakeholder identification—responsibility, influence, proximity, dependency, and representation—were applied by iteratively reviewing the selected corpus of texts to identify stakeholders with whom the NSW DPI is seeking to communicate, as well as other communities of meaning which have a causal relationship with the degradation of fish habitat. Figure 4 displays these identified communities of meaning against the following broad categories: direct users of fish habitats; regulators, government bodies and NGOs; and other actors whose actions may impact fish habitat.



**Figure 4:** Communities of meaning to the issue of fish habitat degradation

## 4.5 Identifying the threats to fish habitat

To this point, this chapter has focused on constructing the single case study being examined by this research, looking at the science behind the degradation of fish habitats in NSW, as well as the socio-historical overview of regulatory efforts by the state and an assessment of the key communities of meaning relevant to the policy issue at hand. The chapter now turns to considering the discursive strategies used by the NSW DPI to both frame the problem of fish habitat degradation and attribute causality for threats to fish habitats. In doing so, Step Three of Yanow's approach to interpretive policy analysis will be completed, as it relates to the first research question: How is the degradation of NSW fish habitats framed in stewardship policy?

Evident throughout the texts selected for analysis, the NSW DPI has deployed discursive strategies that frame the degradation and destruction of fish habitats both as an established problem, and as one for which there are ongoing threats. The NSW DPI heavily relies on scientific evidence in order to communicate with the intended audiences regarding the severity of the problem of, and threats to, fish habitat degradation. There is a clear call to action, with the ongoing social and economic utility of fish habitats targeted by recreational fishers in particular called into question.

Figure 5 depicts the identified threats to fish habitats as framed by the NSW DPI on the Habitat Management section of their website (NSW DPI, n.d.-h). Also illustrated are the attributed causes of these threats to fish habitat, again as framed by the NSW DPI.



**Figure 5:** Threats to Fish Habitats articulated in NSW DPI policy

When articulating the threats to fish habitat, the NSW DPI names the destruction of fish habitat as the primary threat to the ‘health, abundance and diversity of fish in NSW’ (NSW DPI, n.d.-i: para 1). The NSW DPI names diffuse activities including agriculture, urban and industrial development, and land use as activities which have impacted on marine environments. This can be seen in statements such as ‘urban development associated with heavily populated areas has altered marine environments’ (NSW DPI, n.d.-i: para 2) and ‘agriculture, urban and industrial development has impacted... through land clearance, agriculture, dredging, reclamation and water development’ (NSW DPI, n.d.-i: para 2). In this series of texts, the NSW DPI names eleven threats to fish habitat: acid sulfate soils, barriers to fish passage, climate change, cold water pollution, degradation of riparian vegetation, fish kills, impacts of urban and rural development, pests and diseases, removal of large woody debris,



water flow and block and chain in sensitive habitats (NSW DPI, n.d.-i). The following section discusses each of these threats.

**Acid sulfate soils** are named as a threat by the NSW DPI, due to most aquatic life needed a minimum of pH 6 or above to survive. Sulfuric acid can affect waterways, and fish, crustaceans, and plants which are unable to escape acid water may perish as a result (NSW DPI, n.d.-j). The short-term effects of sulfuric acid entering the waterways include fish disease, destruction of fish eggs, and fish kills, with long-term effects ranging from loss of habitat, changes in the makeup of the food web, and high water temperatures to the increased availability of toxic elements (NSW DPI, n.d.-j). The NSW DPI attributes the cause of these threats to ‘land and water management’ and ‘artificial draining of floodplains’ resulting in a build-up of sulfuric acid, iron and aluminium in soils which may not ordinarily be exposed to the atmosphere (n.d.-j: para 1).

**Barriers to fish passage** are named as a threat, due to Australian native fish requiring ‘unimpeded access along waterways in order to survive and reproduce’ (NSW DPI, n.d.-k: para 1). The NSW DPI states that native fresh and saltwater fish move within waters in order to reproduce, feed and to avoid predators. Barriers to fish passage are named as a threat to the migration of these native species, with implications for the viability of local populations due to impacts on spawning or seasonal migrations, the increased chance of predation and disease, reduced genetic flow between populations, and the restrictions that fish face accessing their preferred habitat and food resources (NSW DPI, n.d.-k). Barriers to fish passage are named as physical structures (including dams, weirs, floodgates and causeways), hydraulic, chemical (such as pollution plumes, acid sulfate soil discharge and low dissolved oxygen slugs) and behavioural obstructions like unnatural substrates created by pipes (NSW DPI, n.d.-k). The ‘installation and operation of instream structures’ is named as the cause of barriers to fish passage (NSW DPI, n.d.-k: para 5).

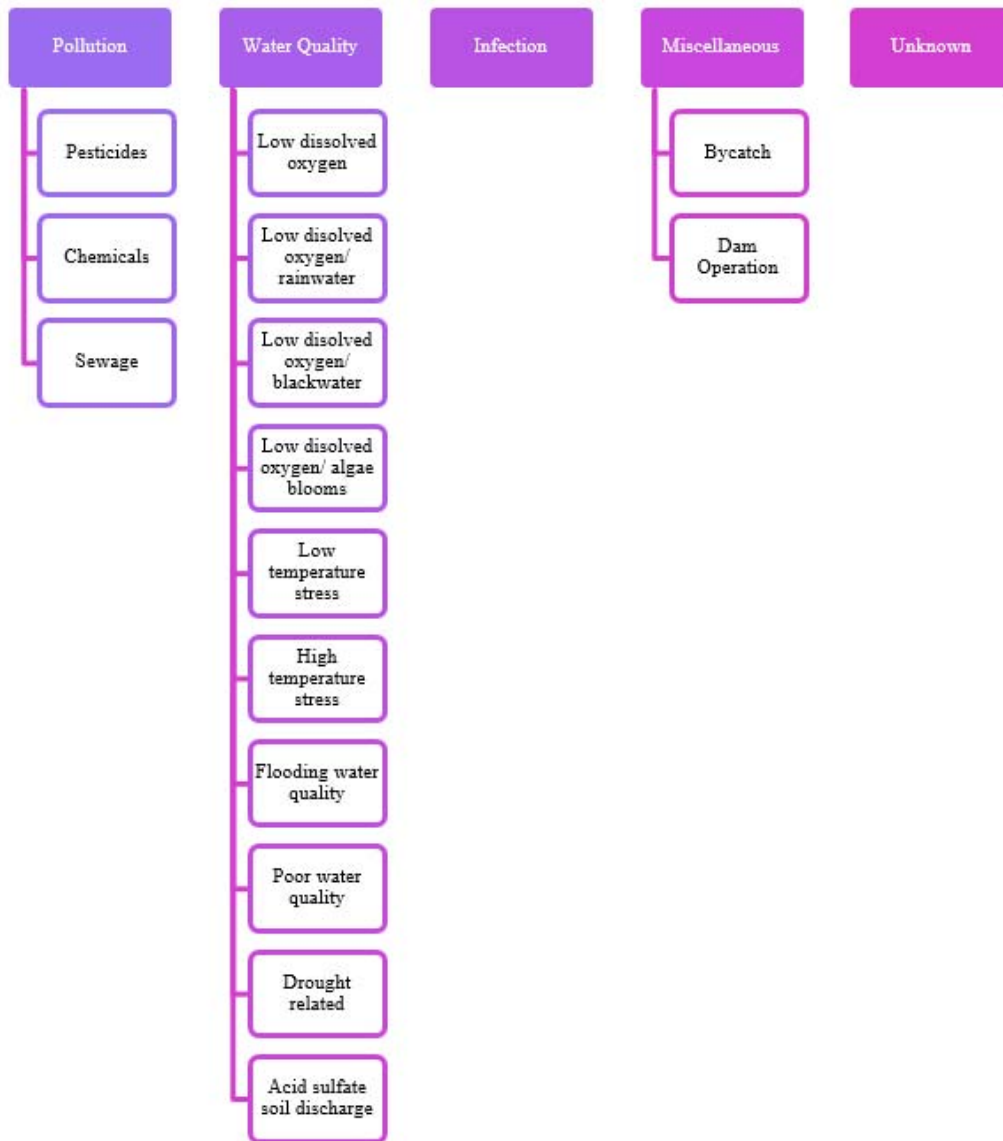
The NSW DPI names global **climate change** as a threat which will ‘affect the natural environment in Australia and NSW’ (NSW DPI, n.d.-l: para 1). The NSW DPI states that some changes resulting from climate change, including increased average temperatures, increased variability in rainfall, and increased rate of change in habitat condition, are widely accepted (NSW DPI, n.d.-l). Predicted impacts of climate change on ocean temperatures and nutrients are named as having a significant influence on marine biodiversity, including impacts on the distribution and stock levels of fish, changes to life cycle events, alterations to physiology and behaviour, and effects on communities and productivity (NSW DPI, n.d.-l). The NSW DPI links human activity to an increased concentration of greenhouse gases in the atmosphere, and

states that findings from the Intergovernmental Panel on Climate Change concluded ‘human activities which increase greenhouse gas concentrations are enhancing the natural greenhouse effect and resulting in climate change’ (NSW DPI, n.d.-l: para 13).

**Cold water pollution** results from an artificial lowering of the temperature in a body of water, and is named as a threat to fish habitat due to cold water being released into rivers from large dams in warmer months (NSW DPI, n.d.-m). Nine older dams in NSW, which are configured to draw water from their bottom, are named as being particularly problematic, due to the water being released being significantly colder than that of the bodies of water they are emptying into (NSW, n.d.-m). The effects of cold water pollution include the natural temperature of rivers being depressed by between 8 – 12 degrees during spring and summer months, leading to reductions in the growth rates of fish, breeding rates, and impacts on their chance of survival (NSW DPI, n.d.-m). Dams are the only cause attributed by the NSW DPI (n.d.m) for cold water pollution.

The term riparian vegetation refers to vegetation which grows on the edge of rivers, creeks and wetlands (NSW DPI, n.d.-n.). Riparian vegetation has ‘many important ecological benefits’, and the degradation of riparian vegetation is named by the NSW DPI as a threat to fish habitat (NSW DPI, n.d.-n: para: 2). Attributed causes of the **degradation of riparian vegetation** include clearing, gravel extraction, cropping, livestock grazing, trampling and introduced species (NSW DPI, n.d.-n:).

**Fish kills** are defined by the NSW DPI (n.d.-o: para 3) as ‘any sudden and unexpected mass mortality of wild or cultured fish’, and in addition to being named as a consequence of acid sulfate soils are also named in their own right as a threat to fish habitat (NSW DPI, n.d.-o). Fish kills can attract significant media and public attention, because of the tendency to link such events to pollution and water contaminants (NSW DPI, n.d.-o). The NSW DPI states that, whilst the cause of just under half of fish kill events is unknown, events which have known causes can be broadly attributed to pollution, water quality, infection, and miscellaneous causes such as bycatch and dam operations. The three most common causes are through low dissolved oxygen, pesticide and chemical pollution and sewage discharge (NSW DPI, n.d.-o). The causes of fish kills as attributed by the NSW DPI are shown in Figure 6.



**Figure 6:** Attributed causes of fish kills by the NSW DPI

The impacts of **urban and rural development** are linked to the destruction of fish habitat by the NSW DPI (n.d.-p), and these combined impacts are named as a key threat to fish habitat. Whilst this is named by the NSW DPI as its own individual threat, other threats which are listed separately as a part of this text are discussed on this page as well (NSW DPI, n.d.-p). For example, barriers to fish passage are named as a separate threat in this text by the NSW DPI, but are also discussed under the impact of urban and rural development threat as well (NSW DPI, n.d.-p). The NSW DPI states that development has impacted the viability of mangrove, seagrass, saltmarsh and coastal lagoon communities, and has led to declining fish populations resulting from increased sediment and the removal of riparian vegetation.

Stormwater runoff, pesticide pollution, sedimentation and nutrient pollution are named as some of the key effects of urban and rural development, along with the removal of organic matter and snags from rivers (NSW DPI, n.d.-p). The attributed cause for this threat is human activity, with the NSW DPI (n.d.-p) stating that activities which ‘destroy aquatic vegetation, block channels and waterways, and disturb the balance between sediment and water flows in rivers and estuaries all contribute to the destruction of fish habitat’ (NSW DPI, n.d.-p: para 5).

The NSW DPI names **pests and diseases** as one of the threats facing fish habitats. Fish species have been introduced into NSW waters since British colonisation, both accidentally and intentionally (NSW DPI, n.d.-q). Some introduced species of plants, animals, and seaweeds are regarded by the NSW DPI as pests, which threaten indigenous aquatic and terrestrial life by altering natural habitats, acting as predators or competing for food sources (NSW DPI, n.d.-q). Introduced pathogens and parasites can also impact biodiversity by causing diseases in native species (NSW DPI, n.d.-q). The introduction of pest species and pathogens not detected by quarantine controls is the attributed cause of this threat to fisheries (NSW DPI, n.d.-q).

One of the most significant influences on fish habitat degradation relates to the **removal of large woody debris**, which the NSW DPI has named as a key threat to fish habitat (NSW DPI, n.d.-r). This debris is one of the most important habitat components of fish habitat, as it provides fish respite from the main current flow, places to seek shelter from predators and breed, and markers to designate territorial boundaries (NSW DPI, n.d.-r). Historical clearing of riparian and floodplain vegetation for urban and agricultural development has resulted in less natural timber and is the attributed cause of this threat (NSW DPI, n.d.-r).

Structures that modify **water flow** such as large dams and weirs on rivers are cited by the NSW DPI (n.d.-s: para 2) as ‘the greatest threat to native fish.’ The construction of such structures is known as the regulation of rivers, and it occurs in order to ensure urban and rural water supplies (NSW DPI, n.d.-s). Instream structures can modify natural flow regimes through increasing or reducing flows, altering the seasonality of flows, changing the frequency and duration of flow events, altering the surface and subsurface water levels, and changing the rate that water levels either rise or fall (NSW DPI, n.d.-s). The NSW DPI states that river regulation impacts native fish by disrupting environmental cues necessary for reproductive cycles, impairing spawning, growth, recruitment, feeding and other life cycle processes, creating physical impediments to fish movement, and through reducing available fish habitat, among other impacts (NSW DPI, n.d.-s). The regulation of rivers is attributed by the NSW DPI as the cause of the issues associated with changes in water flows (NSW DPI, n.d.-s).

The final threat to fish habitat named by the NSW DPI on their Habitat Management website is that of **block and chain moorings** in sensitive habitats (NSW DPI, n.d.-t). Traditional block and chain moorings are used to hold vessels in position, with most moorings being described by the NSW DPI (n.d.-t) as occurring in shallow and sheltered waters, which are the ideal sites for seagrass, soft corals and sponge gardens. These sites are framed as ‘important nursery areas’ for recreational and commercial fish, including snapper, bream, and crabs (NSW DPI, n.d.-t: para 2). The NSW DPI (n.d.-t) cites this damage, combined with wave action, as causing the sediment to further erode and destabilise seagrass beds, therefore leading to their wide-scale loss. Image 1 pictures large white spots that indicate loss of seagrass, demonstrating the damage that traditional boat moorings can have on sensitive habitats.



**Image 1:** Scouring of seagrass beds by boat moorings at Lake Macquarie (NSW DPI, n.d.-t)

The NSW DPI does not explicitly attribute the cause of this threat to any one stakeholder group. The text discussing this threat does however include a number of images of boats dropping block and chain moorings (NSW DPI, n.d.-t), and it is evident the NSW DPI intends the audience to form the view that boaters are causing the damage.

Throughout the analysed policy artifacts, causality is attributed in broad, diffuse terms to a range of human-induced activities. These activities include (amongst others) urban and rural development, the introduction of species and pathogens, construction of structures which amend water flow, and clearing of riparian vegetation. The absence of attribution of blame for the problem of fish habitat degradation to actors who are having the greatest impact on these habitats is consistent across the corpus of texts analysed. As the NSW DPI (2016a: 2) states ‘rivers, creeks and wetlands through NSW have undergone extensive changes due to urban,

industrial and agricultural development.’ In these texts, however, there is an apparent reluctance to attribute causality for any of the key identified threats to specific stakeholders or users of fish habitats.

Instead, for the most part, the attributed causes are able to be linked back to developers, agricultural interests and farmers, commercial interests, and government action (or inaction, as the case may be). This is also supported in the Fisheries, Aquaculture and Aquatic Conservation Key Highlights and Statistics 2014 – 2015 (NSW DPI, 2016b: 21) which states that aquatic ecosystems ‘are subject to a wide range of impacts, from activities such as vegetation clearing, water regulation, dredging, mining and construction, to exotic species and climate change.’ Again, there is no attempt to link these impacts back to any one particular stakeholder or group, nor any attempt to explore the impact government itself may be having on the ecosystem. By definition, the task of water regulation has historically fallen to government – in the Australian context, this has generally occurred at the federal and state level. Likewise, dredging, mining, and construction activities are all governed by various regulatory regimes across federal, state and local jurisdictions. The texts selected for analysis for this thesis are silent on this point, and there is no attempt to create a nexus between government action/ inaction and the problem of fish habitat as constructed by NSW DPI.

On the explanatory website for the Fishers for Fish Habitat program (NSW DPI, n.d.-b), diffuse causes linked to human activity remain at the heart of the explanation for the degradation, however, personal pronouns have been used as a way to emphasise collective responsibility for the problem itself. This can be seen in the following statement:

Most fish habitat in NSW has been modified, lost or destroyed through human-induced change. We have regulated rivers, removed mangroves and saltmarsh for coastal development, drained wetlands and fish nursery habitat, constructed structures which restrict river flow and inhibit fish migration and removed macro habitat such as fallen timber. These changes have put pressure on native fish populations. Fewer fish means reduced fishing and greater scrutiny of fishing activities (NSW DPI n.d.-b: para 1)

Even where the NSW DPI framed fish habitat degradation as emanating from natural causes, there was implicit evidence of the human influence just below the surface. Texts were often silent on the human action (or inaction as the case may be), which had resulted in the fish habitat degradation. ‘The health of the reserve was in a poor state with severe infestations of noxious weeds smothering the site – hampering the growth of native vegetation and restricting community access’ (NSW DPI, 2016a: 4). This degraded reserve was located on Crown Land

– one could argue the blame for this particular degraded site lay in a lack of action by the state in maintaining their assets.

#### **4.5.1 What about recreational fishers?**

In The Recreational Fisher’ Education Strategy Project – a collaboration between the NSW DPI and Southern Cross University, author Liz Baker (2010) suggests that recreational fishing is dependent on users being able to go fishing, and that the social and economic benefits associated with the sport are dependent on there being fish to catch. The availability of fish to catch is affected by the overall stock levels and distribution of adult fish, as well as the recruitment and survival of juveniles (Baker, 2010). When discussing the influences of adult fish stock levels, Baker identifies competition amongst fish, a global decline in fish stocks, and ‘unsustainable fishing practices, including overfishing and illegal fishing by both commercial and recreational fishers’ (Baker 2010: 4). This is notable, as this is one of the only overt statements in the selected texts that attributes part of the blame to recreational fishers. Baker (2010: 4) further states:

...in terms of a sustainable recreational fishery, fish habitat is the critical factor. Detrimental changes to the health and availability of fish habitat are likely to continue given increasing human population and associated coastal development, lag effects of past urban and agricultural activities, and changes to rainfall and temperature associated with climate change.

The language chosen by the NSW DPI to explain the problem of fish habitat degradation has the effect of attributing blame to diffuse sources. The rhetoric generally fails to create a nexus between these sources and the group which may be responsible for them. This also generally holds true when the NSW DPI explains the link between recreational fishing activities and any impact on fish habitats. For example:

The Macleay River breakwall is a favoured fishing spot, offering a land-based fishing opportunity for flathead, whiting, bream and big mulloway. As a result of its popularity, the area closest to the breakwall walking track was frequently accessed by unrestricted vehicles at low tide, driving over and parking on saltmarsh (an Endangered Ecological Community) and mangrove habitat. (NSW DPI 2016a: 9)

Here, whilst the fishing opportunity the Macleay River presents is highlighted, the blame for the degraded area is linked to unrestricted vehicles driving over and parking on saltmarsh and mangrove habitat. The activities the drivers and passengers of these unrestricted vehicles are participating in are not defined – one can only assume that many are recreational fishers. This discursive strategy is utilised elsewhere, and can be seen in the language of ‘pressure from users’ which leads to degradation of sites, due to ‘unrestricted vehicle access, wash from

speedboats and a loss of vegetation' (NSW DPI 2016a: 10). Here the NSW DPI is focusing upon very local impacts of user activities, however the causes of these impacts are still kept quite diffuse.

The NSW DPI presents scientific claims in the context of precautionary principles which are based on the notion that 'in cases of uncertainty, [we must] act so as to avoid the worst possible outcomes' (Bennett 2000: 224). This can be seen in statements such as 'the degradation of aquatic habitat is a major threat to the abundance and diversity of native fishes... a primary objective... is to conserve the habitats that fish are dependent upon for survival' (NSW DPI, 2013c: 5). Scientific claims underpinned by precautionary principles are often presented as an integral part of scientific risk assessment. They may be critiqued however as being an unsuitable and underwhelming alternative to real science (Bennett, 2000). Appeals to scientific evidence are supposed to settle a matter, and thus are common strategies used when framing issues and diagnosing a problem (Skillen, 2006; Grant-Smith, 2015).

#### **4.6 Conclusion**

This chapter has provided an outline of the current regulatory environment as it relates to recreational fishing, as well a map of the relevant communities of meaning for the policy issue of fish habitat degradation. The socio-historical overview of fisheries regulation in NSW has established that policymakers have traditionally relied on coercive regulatory measures in order to achieve environmental governance goals. This socio-historical overview has also established that regulatory efforts to preserve the ongoing utility of fisheries have a mixed rate of success at best, and it is only recently that the social and environmental dimensions of sustainability have been prioritised in conjunction with the economic dimension. Bryson's (2004) stakeholder analysis technique was used to identify relevant communities of meaning to the issue at hand, thus fulfilling the second step of Yanow's (2000) approach to interpretive policy analysis. This chapter has also how the problem of fish habitat degradation is framed by the NSW DPI, and in doing so has satisfied the third step of Yanow's (2000) approach to interpretive policy analysis, as it relates to the first research question central to this piece of work.

Chapter Four has provided an analysis of the identified threats to fish habitat by the NSW DPI. These threats include acid sulfate soils, climate change, cold water pollution, degradation of riparian vegetation, fish kills, urban and rural development, water flow, barriers to fish passage, pests and diseases, removal of large woody debris and block and chain moorings in sensitive habitats. The attributed causes of these threats to fish habitat are diffuse,



with the NSW DPI consistently using phrases like ‘human activity’ across texts and times. The use of this language is indicative of a reluctance to explicitly attribute the cause of certain threats to particular stakeholder groups. An analysis of the selected texts has made it clear that the primary drivers of the threats to fish habitat come from large-scale agricultural and industrial activities, from the threats posed by climate change, and in many cases as a result of regulatory failure over an extended period of time. Whilst it is acknowledged that some of the threats to fisheries arise from diffuse causes, those stakeholders who are really at fault for the ongoing threats to the social and economic utility of fisheries are being neutralised through the deployment of such diffuse language.

This analysis of the selected texts demonstrated that the NSW DPI draws heavily on scientific evidence in order to explain the environmental challenges facing the State’s fish habitats. The causes of the degradation of these fish habitats that has occurred to date, and the ongoing threats to these habitats, are constructed as being much broader than any one interest or stakeholder group. The discursive strategies used by the NSW DPI frame the problem as one where causal attribution is diffuse, and one of which there is an urgency to address. One of the interesting divergences between the causes of the degradation to fish habitats and the attribution of blame for said degradation lies with the role played by recreational fishers. This chapter established that both the NSW DPI and recreational fishers themselves have tended to play down the impact of recreational fishing on fish habitat, despite emerging evidence which suggests the impact of this activity is at least comparable to that of commercial fishing. Recreational fishers are a relatively powerful stakeholder group, as evidenced by their resistance to the enactment of legislation governing marine parks. Although NSW has historically tended to rely on coercive regulatory measures in order to achieve environmental policy outcomes, the marine parks imbroglio demonstrated the limits of this approach. As will be explored in Chapters Five and Six, playing down the threat of recreational fishing to fish habitats is arguably an important facet of the strategy to create moral, autonomous actors with ethical commitments to society writ large.

Factoring in the above analysis however, what is clear from the scientific evidence cited throughout Chapter Four is that recreational fishers are most likely not the primary threat to the ongoing social and economic utility of fish habitats. What is evident is that the ongoing viability of fish habitats is being threatened as a result of a range of human-induced causes, including those related to agricultural and industrial development, climate change, and the activities of government. Even taking into account the emergence of research arguing the impact of recreational fishing is at least comparable to that of commercial fishing, the activities

of recreational fishers are not the greatest threat to fish habitat. There is thus a clear disconnect between which stakeholders are framed as being responsible for causing the damage to fish habitats and those which are being attributed with the responsibility to remedy this damage. This disconnect will be highlighted in Chapter Five, which addresses the second and third research questions. These questions explore how the solutions to the degradation of NSW fish habitats are constructed in stewardship policy, and identify which stakeholders are attributed with responsibility for enacting these solutions.

# Chapter Five – Framing the Solutions to Fish Habitat Degradation

## 5.0 Introduction

In Chapter Four, this research analysed how the NSW DPI constructed the problem of the degradation of the state's fish habitats. The problem of degraded fish habitat was constructed as one with diffuse causes that requires an urgent response in order to ensure the ongoing social and economic utility of these resources. The discursive strategies utilised by the NSW DPI to communicate this problem to disparate audiences rely heavily on language which is framed as neutral, objective, and deeply ensconced in scientific evidence and principles. When it comes to attributing blame for the problem, the NSW DPI has mostly focused on highlighting the diffuse causes of the fish habitat degradation, without seeking to attribute causality in a meaningful way to specific stakeholders. Chapter Four also noted that, whilst there is a growing scientific consensus on the negative impact recreational fishing activities can have on fish habitat, much of this science is still disputed by recreational fishers themselves, and the NSW DPI does not emphasise the impact that recreational fishers may have on fish habitats. Chapter Four also established that the impact of recreational fishing pales in comparison to the impact of other activities, particularly those relating to agricultural and industrial development, as well as climate change.

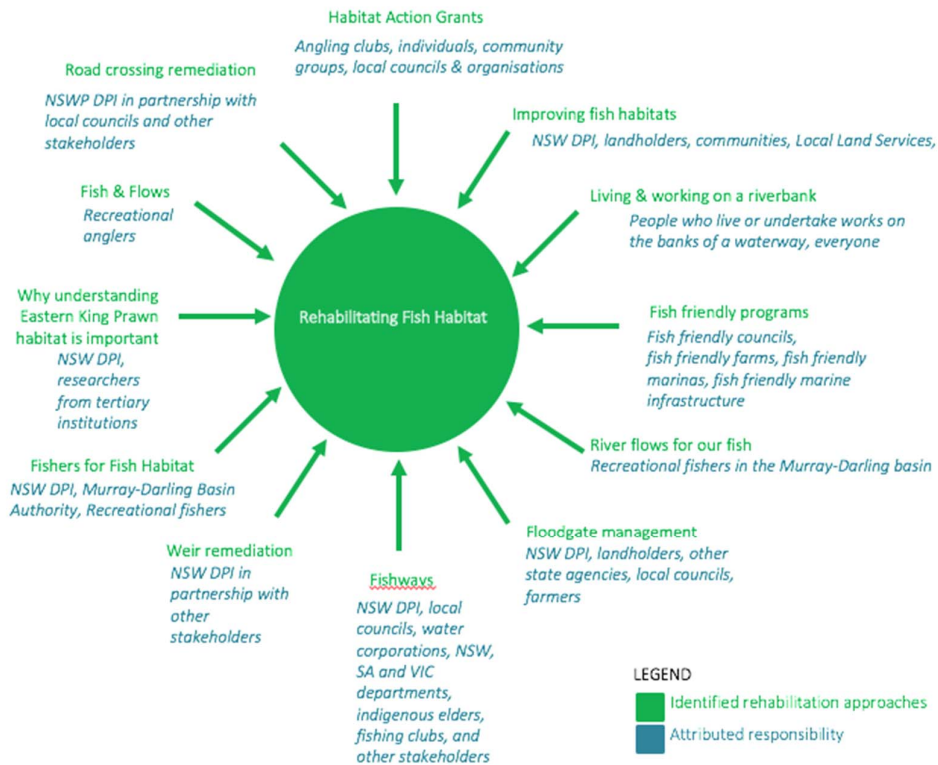
Chapter Five now turns to answering the second and third research questions: 'How are the solutions to the degradation of NSW fish habitats constructed in stewardship policy?' and 'Which stakeholders are attributed with responsibility for enacting these solutions?' This chapter firstly examines how the NSW DPI constructs what it sees as the solution to the problem of fish habitat degradation, before exploring which groups are identified as being key to delivering the solution. The analysis of the collated texts establishes that the NSW DPI frames recreational fishers as being a major stakeholder group which may be mobilised to take part in participatory stewardship activities. There is an argument that recreational fishers may be an easier stakeholder group to mobilise, in part because they have a vested interest in the viability of fish habitats so they can continue to fish recreationally, and in part, because they are a heterogeneous and fragmented group and thus perhaps easier to target.

Chapter Five explores the discursive strategies used by the NSW DPI in their pursuit of the aim to mobilise recreational fishers, and in doing so identifies the underlying themes which

emerged during the iterative analysis of the selected texts, including voluntarism, fostering collaborative behaviours between recreational fishers and the state, and the construction of a sense of citizenship. These identified themes are manifestations of responsabilisation - this chapter will conclude with a discussion around how responsabilisation underpins the discursive strategies used by the NSW DPI to position recreational fishers as being integral to the policy solution for rehabilitating fish habitat. By the conclusion of this chapter, the third step of Yanow's (2000) approach to interpretive policy analysis as it relates to the second and third research questions will have been answered.

## **5.1 The construction of solutions for rehabilitating fish habitats**

On the section of the corporate website identifying the policy solutions the NSW DPI has constructed in order to rehabilitate fish habitats, the following statement appears: 'by removing barriers to fish passage, reinstating snags and riparian vegetation and improving water flows we can make more fish... naturally' (NSW DPI, n.d.-u: para 1). This mantra—make more fish...naturally—sits at the heart of the solution to the problem of fish habitat degradation as constructed by the NSW DPI. The NSW DPI provides the following webpages under Rehabilitating Habitats, which can be considered to be the department's proposed solution to the problem of fish habitat degradation: Habitat Action Grants, Improving fish habitats, Living and working on a riverbank, Fishers for Fish Habitat, Fish friendly programs, River flows for our fish, Floodgate management, Road crossing remediation, Weir remediation, Fishways, Why understanding Eastern King Prawn habitat is important and Fish and flows (NSW DPI, n.d.-u). The following section names and discusses the solutions the NSW DPI has constructed, and the stakeholders who have been attributed responsibility for each. Figure 7 provides a pictorial representation of this discussion.



**Figure 7:** Identified rehabilitation approaches and attributed responsibility

**Habitat Action Grants** are grants provided to ‘angling clubs, individuals, community groups, local councils and organisations interested in rehabilitating fish habitats’ (NSW DPI, n.d.-e: para 1). Grants are available for between \$2 000 - \$40 000, and can be provided for a variety of fish habitat rehabilitation projects, including those that remove or modify barriers to fish passage, rehabilitate riparian lands, re-snag waterways, remove exotic vegetation, stabilise river banks and reinstate natural flow regimes (NSW DPI, n.d.-e). Successful applicants are required to report on the project’s progress as milestones are met, at the project’s completion, and annually following the completion of works if there is an ongoing maintenance period. The NSW DPI provides a number of project ideas which individuals or groups may choose to undertake with links back to the core message that more habitat equals more fish (NSW DPI, n.d.-e).

The NSW DPI positions itself ‘at the forefront of aquatic habitat repair’ and **improving fish habitats**, and states that it ‘plays a lead role in rehabilitating fish habitat and native fish populations in NSW’ through the Aquatic Habitat Rehabilitation Program and the formation of strategic partnerships (NSW DPI, n.d.-w: para 1). The NSW DPI states that key ways to improve fish habitat are to: restore instream woody habitat, restore riparian areas, and improve

fish passage (NSW DPI, n.d.-w). This text emphasises the science which underpins these key ways to improve fish habitat, and identifies associated benefits. The NSW DPI states that these projects occur through strategic partnerships, and refers in particular to ‘working with landholders, communities and Local Land Services’ to rehabilitate riparian vegetation (NSW DPI, n.d.-w: para 22). When discussing an example project focused on the Hume to Yarrowonga Resnagging, the NSW DPI (n.d.-w: para 8) outlines the risk management issues which ‘you should consider’ when undertaking re-snagging projects. The NSW DPI also stresses that ‘consultation should be undertaken with relevant authorities early during project development.’ (NSW DPI, n.d.-w: para 8).

**Living and working on a riverbank** is designed to inform landholders who may live or work on the banks of a waterway about their legislative obligations when it comes to protecting native fish and their habitat. The NSW DPI states that ‘rivers and other natural waterways are vital habitat for a range of species’ and that these waterways are ‘an important part of our way of life’ (NSW DPI, n.d.-x: para: 2). Links are drawn between the waterways and the industries which are reliant on them, such as tourism, recreational and commercial fishing and aquaculture (NSW DPI, n.d.-x). The NSW DPI (n.d.-x: para 2) states that ‘habitats are under pressure from further development, increased demand for water use and inappropriate land management practices’ prior to stating that these pressures combined have resulted in a loss of aquatic habitat, sedimentation, erosion, and other water pollution issues. ‘Everyone has a role to play in ensuring our waterways and estuaries continue to be healthy and productive for future generations’ (NSW DPI, n.d.-x: para 4).

**Fishers for Fish Habitat** is described by the NSW DPI as ‘an innovative project which recognises the involvement of recreational anglers in habitat improvement initiatives’ that ‘aims to inspire anglers to do what they can to protect and enhance’ fish habitat (NSW DPI, n.d.-b: para 3). Funded by revenue raised through the NSW Recreational Fishing fee, the project includes the Habitat Action Grants which were discussed earlier in this chapter, as well as the Fisher for Fish Habitat forums, which provide an opportunity for fishers to ‘get together, share their fish habitat stories and hear from people working to rehabilitate aquatic habitat’ (NSW DPI, n.d.-b: para 3). The NSW DPI states:

Most fish habitat in NSW has been modified, lost or destroyed through human-induced change. We have regulated rivers, removed mangroves and saltmarsh for coastal development, drained wetlands and fish nursery habitat, constructed structures which restrict river flow and inhibit fish migration and removed macrohabitat such as fallen timber. These changes have put pressure on native fish populations. Fewer fish means reduced fishing and greater scrutiny of fishing activities. (NSW DPI, n.d.-b: para 1)

**Fish friendly programs** fall into four categories: fish friendly marine infrastructure, fish friendly councils, fish friendly farms and fish friendly marinas. These programs are aimed at a diverse range of audiences, including councils, farmers, boaters and marina operators (NSW DPI, n.d.-y). Developed by the NSW DPI, these programs acknowledge the necessity of existing infrastructure, and aim to lessen the impacts of urbanisation, council works programs and other human activity on fish habitats (NSW DPI, n.d.-y).

**River Flows for our Fish** was a NSW DPI (n.d.-z) authored survey whose intended audience was recreational fishers (NSW DPI (n.d.-z). The aim of this survey was to assess the knowledge and capacity of recreational fishers within the Murray Darling Basin to participate and engage with discussions about river flows (NSW DPI, n.d.-z). This survey sought to identify where recreational fishers fished within the Murray-Darling Basin, and gauged their levels of understanding of how planned water releases affect fisheries. Whilst the survey sought to identify the communication needs of recreational fishers in order to understand environmental flows, the NSW DPI used the gathered data when ‘developing a broader community engagement strategy’ that provides a path to developing methods and messaging that listens to fishers concerns and ‘effectively engage(s) recreational fishers in working together to deliver outcomes for fish from environmental water’ (NSW DPI, n.d.-z: para 2).

Floodgates are designed to prevent water entering particular areas, and in NSW in particular have been installed to prevent large areas of low-lying areas from flooding due to high tides or flooding events (NSW DPI, n.d.-aa). Floodgates can have a significant impact on fish passage, and also on the quality of water within rivers and creeks where floodgates are installed (NSW DPI, n.d.-aa). The NSW DPI has identified the controlled opening of floodgates during non-flood periods (referred to as **floodgate management**) as being the preferred solution, and provides a series of steps in order to manage floodgates (NSW DPI, n.d.-aa). Local councils and landholders are generally the managers of floodgates, and the NSW DPI recommends that a written agreement be signed by all stakeholders in order to clarify the aims and responsibilities of those involved, and determine what engineering or structural solutions need to be implemented in order to allow for the floodgate to remain open in non-flood periods (NSW DPI, n.d.-aa). The NSW DPI is silent on who should have responsibility for identifying potential sites for improved floodgate management, however infers that this should be a collaborative effort between landholders upstream, local councils, and other state agencies as required (NSW DPI, n.d.-aa).

Waterway crossings can have a significant impact on fish passage, and the NSW DPI has established several projects in partnership with local councils to create databases of

problem road crossings and causeways that act as barriers to fish passage (NSW DPI, n.d.-ab). The NSW DPI states that reducing the number of road crossing should be a primary objective, and that any new crossings should be designed to minimise impacts on fish passage. **Road crossing remediation**, whereby existing crossings are removed or rehabilitated to allow fish passage, is identified as a key aspect of this solution (NSW DPI, n.d.-ab).

**Weir remediation**, whereby existing weirs are either modified or removed, is identified as a key management tool to address river degradation (NSW DPI, n.d.-ac). Weirs are structures built across a defined waterway that restrict flows and cause water to pool behind the structure. This can have an impact on both fish passage as well as the overall health of the river. As community needs evolve, older weirs may become redundant. With funding from the fees charged for the licenses issued to recreational fishers in NSW, the NSW DPI is collaborating with other stakeholders to remove and modify existing weirs where appropriate (NSW DPI, n.d.-ac). This solution is positioned as one which both lies in the hands of the owners of the weirs and community (NSW DPI, n.d.-ac). The NSW DPI also notes that weir removal projects have been undertaken with a range of stakeholders, including the NSW Environmental Trust and the WWF Australia (NSW DPI, n.d.-ac).

**Fishways**, also known as fish ladders or fish passes, are structures placed on or around structural barriers that provide fish the opportunity to migrate unimpeded (NSW DPI, n.d.-ad). Fishways are designed to cater for the physical characteristics and swimming abilities of the dominant fish community. Given the varying characteristics of the waterways where fishways solutions are implemented, the NSW DPI has identified a wide range of stakeholders which may be instrumental in their implementation (NSW DPI, n.d.-ad). The intended participants of this solution include the NSW DPI, local councils, water corporations, relevant departments within NSW, VIC and SA, indigenous elders, fishing clubs and other stakeholders (NSW DPI, n.d.-ad).

One of the solutions identified by the NSW DPI (n.d.-v) under Rehabilitating Habitats is termed '**Why understanding Eastern King Prawn habitat is important**'. This solution was a collaborative research project between the NSW DPI and researchers from select tertiary institutions designed to gain a better understanding of the ecology of Eastern King Prawns during their estuarine juvenile stages, and how habitat change has impacted productivity (NSW DPI, n.d.-v). The NSW DPI notes that, whilst there was a lack of quantitative research on the early estuarine stages of Eastern King Prawns in NSW, fishers had provided anecdotal reports of the use of estuarine swamps by young Eastern King Prawns prior to wetland degradation (NSW DPI, n.d.-v). This research project was thus identified as essential to accurately value



coastal wetland habitats, and provide information to be used in conducting a cost-benefit analysis around rehabilitating these wetlands (NSW DPI, n.d.-v).



Image 2: Infographic linking improved flows to benefits for fish (NSW DPI, n.d.-ae)

**Fish and flows** is a solution targeted at recreational fishers, which aims to educate recreational fishers on the importance of flows to helping native fish grow, survive, and thrive, particularly within the Murray-Darling Basin (NSW DPI, n.d.-ae). The NSW DPI states that there are an estimated 430 000 recreational fishers within the Murray-Darling Basin, which contribute around \$1.3 billion annually to the Australian economy (NSW DPI, n.d.-ae). This solution uses the ‘best available science and knowledge regarding native fish requirements to guide water management and rehabilitation activities’ (NSW DPI, n.d.-ae: para 8). The NSW DPI has developed a range of infographics (see Images 2 and 3 for examples) and a YouTube video to educate and communicate to recreational fishers the importance of flows (NSW DPI, n.d.-ae). The NSW DPI states that they work with ‘a range of other government organisations and communities to get the best possible outcomes’ for fish habitats (NSW DPI, n.d.-ae: para 8). Despite this statement, all of the images which are featured as a part of this particular solution are of recreational fishers (with four of the five images featuring males and one image featuring a female recreational fisher). Further, the educational video ‘Recreational Fishers Understanding Flows in the Murray-Darling Basin’ that is embedded as a part of the Fish and Flows webpage constructs recreational fishers as being supportive of improving flows once they have gained additional scientific knowledge (NSW DPI, n.d.-af). Recreational fishers which feature in this video make statements like ‘I think it is imperative that rec fishers have a

voice in this whole structure’ and ‘We need to take ownership of our rivers as recreational anglers’ (NSW DPI, n.d.-af: 2 ).

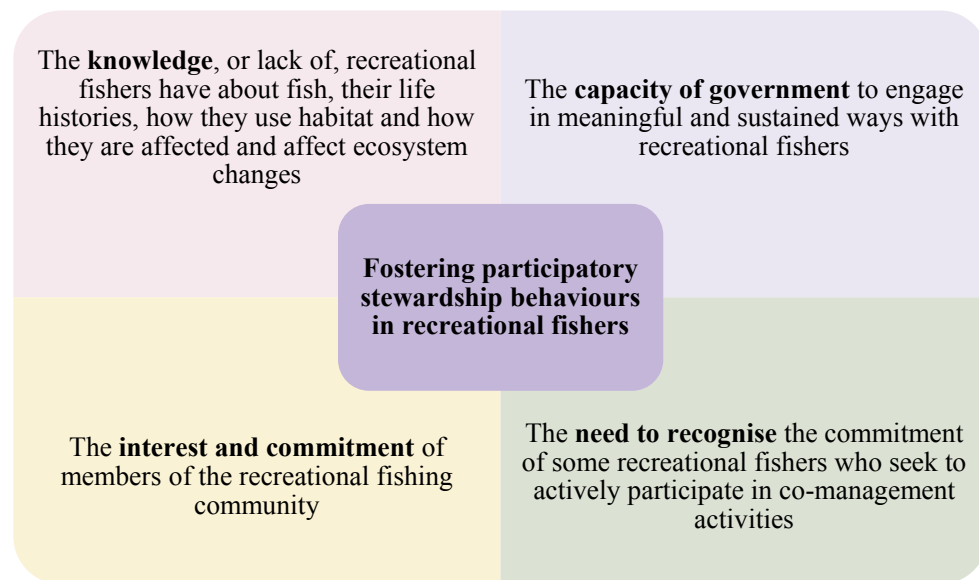


**Image 3:** Second Infographic linking improved flows to benefits for fish (NSW DPI, n.d.-ae)

The NSW DPI is a strong advocate of balancing the demand-side management of fisheries resources with an increased focus on supply-side management (in other words, improving fish habitat). The primary audience of the texts with a focus on improving fish habitat, and the key stakeholder group the NSW DPI is communicating with in an attempt to increase their participatory stewardship behaviours, is recreational fishers. The NSW DPI views recreational fishers as a key group which may be mobilised to remedy much of the damage which has occurred to fish habitats due to the vested interest they have in the ongoing utility of these resources. The view of the NSW DPI is that ‘ideally, recreational fishers would be major participants in aquatic habitat rehabilitation’ (Baker, 2010: ii), a view which was discussed in Chapter Two, and one which is supported by a number of voices in the research area (Granek et al., 2008; Cooke et al., 2013). The move towards alternatives that endeavour to evoke changes in fisher behaviour are grounded in the hope that voluntarily motivated resource-conserving informal institutions will emerge (Cooke et al., 2013).

In terms of mobilising non-state actors (and in particular recreational fishers) to increase their voluntary involvement in participatory stewardship activities, former NSW DPI scientist Elizabeth Baker (2010: 7) framed the challenge as including four key elements centring on: improving the knowledge recreational fishers have about fish habitat, ensuring government has the capacity to engage with recreational fishers in meaningful and sustained ways, the interests of the recreational fishing community, and the need to recognise the commitment of those

recreational fishers who actively participate in co-management activities. The elements of this challenge are pictured in Figure 8.



**Figure 8:** Elements of the challenge of increasing participatory stewardship behaviours in recreational fishers (Baker, 2010: 7)

In order to tackle the challenge of improving participatory stewardship behaviours in recreational fishers and address perceived knowledge gaps, the NSW DPI uses discursive language grounded in science. For instance, the NSW DPI states that ‘Sound scientific knowledge is crucial to underpin the management of the state’s aquatic ecosystems and sustainable harvest of fisheries resources’ (NSW DPI 2016b: 17). Appeals to scientific evidence are supposed to settle a matter, and thus are common strategies used when framing issues (Skillen, 2006; Grant-Smith, 2011). This grounding in scientific evidence is consistent across time and across texts and is also consistent with the NSW DPI’s problematisation of the issue.

For example, in March 2013 in response to the Report of the Independent Scientific Audit of Marine Parks in NSW, the NSW Government announced a new approach to managing the marine estate, driven by two new advisory bodies: The Marine Estate Management Authority and the Marine Estate Expert Knowledge Panel. The Marine Estate Management Authority oversees management of the marine estate with ‘expert advice from the independent Marine Estate Expert Knowledge Panel’ (NSW DPI 2016b: 19). The use of words like ‘independent’ and ‘expert’ are designed to signal that this process can be trusted, that it is removed from politics, and that positions are evidence-based.

There is evidence to suggest however that this reliance on expert advice and scientific discourses is in and of itself insufficient to mobilise recreational fishers as a stakeholder group to form part of the solution to fish habitat conservation (Li et al., 2010). This is also evident when considering the resistance of recreational fishers to the enactment of marine parks legislation which was discussed in Chapter Four –relying solely on evidence-based research without taking into account the experiential knowledge of users of local fish habitats has proven to be a risky approach to policy enactment. From the analysis of the selected texts, the NSW DPI clearly consider one of the barriers to increasing participatory stewardship behaviours in recreational fishers lies in addressing perceived knowledge gaps around the importance of fish habitat. For the NSW DPI, the solution to mobilising recreational fishers lies in linking improvements in the quality of fish habitat to increased fishing opportunities. More habitat equals more fish.

This mantra is one of the key messages the NSW DPI is seeking to communicate to recreational fishers. The NSW DPI asks ‘What if all these habitat features could be improved... just imagine how many more fish there would be’ (NSW DPI, 2009: 2). ‘Pretty simple projects... can have a great (positive) impact on the waterway and its fish – meaning over time there is more fish for you to catch! (Fish Habitat Network, 2016). ‘More habitat equals more fish equals better fishing!’ (NSW DPI, 2016a). Occasionally, the message takes on a bleaker tone: ‘Most fish habitat has been modified, lost or destroyed through human-induced change.... Fewer fish means reduced fishing and greater scrutiny of fishing activities.’ (NSW DPI, n.d.-b: para 1).

This messaging makes it clear that the NSW DPI views recreational fishers as having a vested interest in the social and economic utility of fisheries, and that if only recreational fishers would realise this, the levels of participation in stewardship activities would rise. To the NSW DPI, the key to unlocking this potential lies in educating recreational fishers, a topic to which this thesis now turns.

### **5.1.1 A failure to effectively educate and communicate?**

Despite the elements of the challenge of increasing participatory behaviours as outlined by Baker (2010), it is evident the NSW DPI see the lack of knowledge amongst key stakeholders about fish habitat as a barrier to increased participation. Baker (2010: 17) suggests that the issues presented by the threats to fish habitat may be partially problematised as one of knowledge gaps amongst key stakeholders, including recreational fishers, about how fish use habitat. The knowledge gaps of fishers are centred on the importance of habitat, where fish

breed, specific life history and habitat use, and habitat change (Baker, 2010). The argument goes that if these knowledge gaps can be addressed, then recreational fishers will naturally become more invested in habitat preservation activities – after all, they have a vested interest in the ongoing social and economic utility of the resource. As articulated in the Recreational Fishers’ Education Strategy Project:

This project arose out of concern that the message about fish habitat was not being communicated effectively, despite many years’ work with local communities on aquatic habitat rehabilitation projects and providing information about fish habitat issues. Ideally, recreational fishers would be major participants in aquatic habitat rehabilitation. This is not yet the case. Recreational fishers are, therefore, a key audience for fish habitat messages (Baker, 2010: 1).

There was a strong emphasis in the analysed texts on ‘engaging recreational fishers in the challenge of managing and improving fish habitat’ (Baker, 2010: 8). The NSW DPI uses mechanisms such as surveys to ‘find out how much recreational fishers... know’ about concepts like ‘the positive benefits river flows have on our native fish populations’ (NSW DPI Fisheries, 2016a). Survey instruments were viewed as a mechanism to enable the NSW DPI to ‘better engage’ with recreational fishers (NSW DPI Fisheries, 2016a). The NSW DPI has identified key fisheries management opportunities as including ‘encouraging greater public involvement [and]... improving public education’ (NSW DPI Fisheries, 2014b: para 5).

A key aspect of achieving this engagement was seen to be through ‘the education of recreational fishers about fish habitat’ (Baker, 2010: 8). Baker argues that barriers to increasing the participation of recreational fishers in participatory stewardship activities lies in communicating in a more effective and meaningful way (Baker, 2010). Baker (2010) argues that the education and engagement of fishers on the topic of fish habitat therefore needs to link in with concepts of:

Being outdoors and being with family and friends using messages relating to being your own person, creativity, being part of nature, doing the right thing and caring for others and the environment [and] Relaxation, recreation and the sense of achievement that comes with catching fish using messages relating to enjoyment, adventure, following tradition and showing others how good you are. (Baker: 2010: 20)

Arguably this is a normative approach by Baker which fails to adequately consider the influence that the encroachment of neoliberal thought has had on policy formulation. This approach also fails to adequately take into account whether recreational fishers are being asked to disproportionately shoulder the responsibility for implementing solutions to fish habitat degradation, as conceived by the NSW DPI. This idea that recreational fishers are being asked

to disproportionately shoulder the stakeholder burden for repairing state assets will be discussed in greater depth in Chapter Six.

From the analysis of the selected texts, it is apparent the NSW DPI does not wish to be seen as the sole messenger of the more habitat equals more fish mantra. Part of the rationale for this lies in research exploring the sources of information that fishers trust. Research conducted by the NSW DPI (Miles, Baker & Copeland, 2014) suggests that fishers preferentially trust information provided by other fishers and in particular those fishers perceived to be respected, or who are ‘good fishers’. Secondly, fishers have preferred sources of information, preferences which may evolve over time. The internet is a strongly preferred source of information, with fishing magazines also generally figuring in the top three (Miles, Baker and Copeland, 2014). Miles, Baker and Copland (2014) noted that government does not figure highly on a list of trusted or preferred sources of information. This would suggest why many of the selected texts are voiced by fishers such as fishing writer and presenter ‘Starlo’, and why in some texts departmental branding is kept to a minimum. For example, ‘Starlo’ is described as a supporter of ‘Recreational fishers make fish happen!’, a text which emphasises stories of fishers improving fish habitat and making more fish naturally (NSW DPI, 2009). The front page of this document was completely absent of any departmental logos or branding—small departmental symbols only appeared on the back pages of the brochure.



**Image 4:** Steve ‘Starlo’ Starling, Fishing writer and presenter (NSW DPI, 2009: 3)

In further support of this point, Image 4 shows ‘Starlo’ holding two fish, with the caption describing him as a fishing writer and presenter. This approach is designed to communicate the message that ‘Starlo’ is a successful fisher who can be trusted to speak about the issue at hand.



This emphasis on using respected fishers is a discursive strategy that is employed over time and texts. In the collection of narrative stories collated in *Recreational fishers make fish happen* (NSW DPI, 2009), the experienced subjects of the stories are described as having fishing experience ranging from twenty-five years, to fifty-eight years, to ‘since I was knee-high to a grasshopper’ (NSW DPI, 2009: 7). The emphasis on using experienced fishers to sell the NSW DPI’s message can also be seen in the following example:

Kevin...is well known and deeply respected in fishing circles as a master lure maker. However, his quiet achievements as a protector and advocate for fish habitat are lesser known. Kevin has been involved in projects to restore fish habitat in the Richmond River since the early 1990’s [sic], working with NSW DPI Fisheries to improve passage for fish in the river. Not afraid to put into practice his strong beliefs for river restoration, he started work to restore the riverbank behind his own property. (NSW DPI, 2016a: 12)

These statements are supported with pictures of Kevin ‘getting his hands dirty at a local tree planting day’ (NSW DPI, 2016a: 12), and ‘discussing his passion for fish and the river’ (NSW DPI, 2016a: 12) as shown in Image 5. Including a picture of Kevin being filmed is designed to demonstrate that he is an expert who can be trusted on the topic at hand, and to support the statements that he is well known and deeply respected in fishing circles. Across all of these stories, the NSW DPI is seeking to frame the message of more habitat equals more fish as one that is emanating from trusted sources.



**Image 5:** Kevin discussing his passion for fish and the river (NSW DPI, 2016a: 12)

In addition to using brochures and newsletters, the NSW DPI uses social media and their website as a way to communicate with recreational fishers. Social media platforms have become a mechanism for educating recreational fishers about the importance of fish habitat, as well as of alerting them to their legislative and regulatory obligations when undertaking fishing

activities. In addition to posting about compliance activities and infringement notices that have been issued to recreational fishers who have not adhered to the law, the NSW DPI Fisheries Facebook page educates fishers about ‘typical vegetation’ surrounding fish habitats. Image 6 is an example of this. This image was posted on the NSW DPI Fisheries Facebook page with the caption ‘You can also see some of the larger trees have fallen into the river to form snags which are important home and breeding sites for native species’ (NSW DPI Fisheries, 2016c).



**Image 6:** Fallen large trees create snags in river (NSW DPI Fisheries, 2016c)

The aims of this educative strategy of the NSW DPI can be linked back to the Recreational Fisher Strategy, and the desire to create ‘habitat champions’ out of recreational fishers, with strategies aiming to ensure recreational fishers were informed about habitat, and mobilise them to inform fisheries managers about habitat issues (Baker, 2010: 2). Chapter Six will unpack this concept of habitat champions as it links to responsabilisation in greater detail.

Thus far, this chapter has demonstrated that the NSW DPI has framed the solutions to fish habitat degradation as resting on the mobilisation of non-state actors (in particular recreational fishers) to increase their involvement in habitat stewardship activities. The recurring theme through the analysed texts is that recreational fishers may be mobilised through better communication strategies, using expert fishers as messengers for the more habitat equals more fish mantra, and through increased education which is grounded in independent evidence-based science. The increased involvement of recreational fishers in habitat stewardship activities is constructed as being mutually beneficial for recreational fishers as well as for fish habitats.



Links are drawn between the quality and quantity of fish habitat, fish populations, and improved fishing opportunities. Baker (2010: 7), when discussing opportunities for increasing recreational fisher involvement in stewardship activities, suggests that ‘values, motivation, trust, locus of control and sense of community all inform the degree to which people participate in any education and/or engagement process.’ This statement is worthy of further attention, as it is recognition a focus on more effective communicative and educative strategies is in and of itself insufficient. It is therefore useful to look below the surface of the assembled texts, to gain an understanding of how the NSW DPI is discursively attempting to harness the values and motivations of recreational fishers in order to successfully implement their proposed solution to fish habitat degradation. Having discussed the constructed solutions as proposed by the NSW DPI, and the barriers to implementing them, this chapter now applies the third step of Yanow’s (2000) interpretive policy analysis to the second and third research questions, in order to understand the recurrent underlying themes behind the NSW DPI’s discursive strategies, and how the NSW DPI seeks to harness recreational fishers values and motivations to solve the problem of fish habitat degradation.

## **5.2 Underlying themes of the solution to fish habitat degradation**

An iterative and reflexive analysis of the collated texts identified that underpinning the educative and communicative discourses of the NSW DPI lie the themes of voluntarism, fostering collaborative behaviours and the construction of a sense of citizenship. This section will discuss these themes in turn, looking at the rhetorical devices utilised by the NSW DPI that act as a clarion call and tap into the values and motivations of recreational fishers.

### **5.2.1 Voluntarism**

A strong theme which emerged during the analysis was that of voluntarism. The push towards increasing voluntary participation in stewardship activities is underpinned by a network of neoliberalised strategies which normatively link social-democratic goals with market-driven priorities. This can be seen in the links which are made between the restoration of fish habitats and their ongoing economic and social utility. The ultimate goal here is to mobilise non-state actors (particularly recreational fishers) to volunteer their time for a range of participatory stewardship activities. Whilst this is framed by advocates of volunteering as a positive policy move, the ideological embrace of the virtues of volunteering is inextricably linked to an agenda by the state of governing at a distance (Summerville & Adkins, 2008). Volunteering is

constructed as a virtuous activity, with benefits not only for fish habitats but also for the recreational fishing community at large. ‘Starlo’ is quoted in departmental materials as saying:

Grass-roots anglers – people just like you and me – have rolled up their sleeves and pitched in to do something positive to protect, defend or repair threatened aquatic habitats. In the process, they have helped make more fish for the rest of us to catch and enjoy. (NSW DPI, 2009: 3).

Through the use of expert fishers as key messengers, the NSW DPI is framing participation in stewardship activities as being altruistic with positive benefits for the wider community, other recreational fishers and for future generations. A unifying theme across neoliberal policy programs is the desire to create congruence between economic rationality and moral responsibility; in other words to create moral, autonomous actors with ethical commitments to those around them (Lemke, 2001; Shamir, 2008). The statements by Starlo are evidence of the operationalisation of this desire. It is important to consider what is not being communicated, as well as what is being communicated, when conducting an analysis of these texts. The reality of volunteering, whereby recreational fishers volunteer their time over the medium to long-term to ameliorate the condition of degraded state assets, the damage to which they are by and large not primarily at fault for, is absolutely not being communicated. There is arguably a question as to whether it should be.

This construction of volunteering as altruistic and virtuous is consistent over texts and time. According to the NSW DPI (n.d.-b, para 2), we can ‘all be inspired by the many recreational anglers throughout NSW who are doing things to improve fish habitat.’ There is increasing emphasis on the medium to long-term commitment that the ideal volunteer makes. This can be seen in statements like ‘Kevin has committed to five years maintenance of the site to ensure the funding and his hard efforts are not futile’ (NSW DPI, 2016a: 12); as well as ‘The Club’s dedication was demonstrated by the high level of volunteer involvement in planting, mulching and watering activities... over 3000 volunteer hours were devoted to the rehabilitation project’ (NSW DPI, 2016a: 3). The NSW DPI even has its own group of community volunteers, who are given the opportunity to enrol in the ‘DPI Fishcare’ program. The DPI Fishcare program has been running since the year 2000– in 2014 the program had 302 volunteers across the state. These volunteers assist the DPI in ‘encouraging responsible fishing practices and ethics throughout the fishing community’ (NSW DPI Fisheries, 2014a: para 5). The NSW DPI asks through their Facebook page ‘If you have a passion for fish and fishing and you’d like to help protect our aquatic habitat, why not think about becoming a Fishcare volunteer’ (NSW DPI Fisheries, 2014a: para 5).

Part of the rationale for focusing so heavily on volunteer achievements, and framing participation in stewardship activities as altruistic, lies in the challenges that are associated with fostering voluntary behaviours in recreational fishers. One of these is in the need to recognise the commitment of some recreational fishers who seek to actively participate in co-management activities. As Baker (2010: 19) states:

Recreational fishers want to go fishing. It is their sport and their recreation. Getting people involved in the proactive development or even maintenance associated with any recreational activity is hard, especially as it is usually voluntary. Part of the challenge is also that hard work now will not usually equate to an immediate improvement in fishing experience.

The challenges for policymakers seeking to mobilise recreational fishers lies not only in the opportunity-cost associated with giving up pleasure time spent on fishing in the short-term, in exchange for a long-term benefit in more fish that may not ever actually eventuate. Given the vast majority of fish habitat targeted by recreational fishers is on land owned by either a council or the state government, one cannot simply show up and start restoring the habitat without approval from the relevant regulators. In order to begin restoring habitat on state-owned land, fishers are required to navigate bureaucracy to ensure that they have the relevant approvals, and are aware of the conditions that are associated with the provision of grants.

Later texts within the selected corpus, in particular, are focused on not just celebrating volunteer achievement, but on driving home the message that any volunteer work can (and will need to be) achieved in the grant payment time frame whilst the volunteers are balancing any other priorities they may have in their lives. This can be seen in statements like ‘[a] high level of preplanning was required to ensure all stakeholders were supportive of the project, that all legislation was adhered to, and the project activities progressed smoothly’ (NSW DPI, 2016a: 10). The NSW DPI emphasises the prudence of collaboration with government in order to achieve this – an emphasis which will be unpacked when discussing the emergent theme of collaboration with state actors later in this chapter.

What is perhaps most interesting here is there is no apparent attempt to mobilise developers, commercial fishers, or large-scale industrial or agricultural actors to assist with habitat restoration. In the selected texts, the document ‘Policy and guidelines for fish habitat conservation and management’ (NSW DPI: 2013a) is the only text targeted audience is developers, their consultants, and other government and non-government organisations. The purpose of this document is to help these actors ensure their compliance with legislation, policies, and guidelines as they relate to fish habitat conservation and management (NSW DPI, 2013a: iii). Through this text the NSW DPI does not endeavour to mobilise these audiences to

volunteer their time to restore fish habitats, despite there being significant evidence, embraced and articulated by the NSW DPI itself, that diffuse, land-based sources of pollution and run-off are some of the key threats to the ongoing social and economic utility of fish habitats. The constructed solutions to the issue of fish habitat degradation are really aimed at the users of this habitat, rather than the polluters themselves.

In a social media post for the Fish Habitat Network, former UK politician and Parliamentary spokesman for angling Martin Salter argues

‘It’s a sad fact of life that Fishers in the UK or America are three times more likely to get involved in habitat issues than here in Australia – and that simply has to change and I have no doubt it will’ The post goes on to state ‘it’s the recreational anglers of Australia who have the power to protect and restore fish habitat by getting involved and engaged and not just assuming someone else will do it for you because life ain’t like that (Fish Habitat Network, 2016b).

Statements like this are incredibly value-laden, and this sentiment completely overlooks the causes of fish habitat degradation, by seeking to place responsibility for remedying the degradation in the hands of the few key users of these resources. It is not only recreational fishers that benefit from restored fish habitats and sustainable waterways, and it is not only recreational fishers that are contributing to the degradation to fish habitats. This view articulated by Salter is a simplistic narrative that seeks to remove the issue from its holistic, ecosystem context. Whilst this perspective aligns with that articulated by the NSW DPI in the analysed texts, it is problematic as recreational fishers are being mobilised to volunteer their time to solve a problem they are not the root cause of. With this in mind, this chapter now turns to considering how the selected texts seek to foster collaborative behaviours between recreational fishers and state actors.

### **5.2.2 Fostering collaborative behaviours between recreational fishers and state actors**

The analysis of the selected texts provides evidence of a desire to shift how governmental authority is deployed, with an emphasis on voluntary mechanisms operating in concurrence with regulatory mechanisms that have the coercive backing of the state. Recreational fishing remains a highly regulated activity. The NSW DPI has used a number of rhetorical devices to shape perceptions, and encourage collaboration between recreational fishers and relevant government authorities at the state and local level. The former Executive Director Fisheries NSW, Dr Geoff Allan stated ‘Fish habitats underpin the productivity of our State’s fisheries resources. It is therefore vital that the government and community work together to protect and restore them, in order to sustain our fisheries in the long-term’ (NSW DPI, 2013a: iii). The use

of the word community here is contextual, with the implication being recreational fishers and users of fish habitats are the key stakeholders who need to work with government to protect and restore fish habitat.

The NSW DPI encourages collaboration between recreational fishers and local, state and federal government, in order to rehabilitate degraded fish habitat. This is achieved through praising actors who ‘took matters into their own hands’ (NSW DPI 2016a: 6) as well as through celebrating outcomes which ‘significantly demonstrated that small community groups can collaborate with government to achieve positive outcomes for native fish’ (NSW DPI: 2016a: 10). The NSW DPI uses phrases like ‘strategic partnerships’ when advocating for collaborative efforts, and links the projects delivered through these partnerships back to the improved utility of fish habitat targeted by recreational fishers (NSW DPI, 2016a: 7). Increasing the participation of non-state actors, particularly those who are perceived to a stake in the issue at hand, provides an opportunity for the state to govern through regulated choice by strategically creating moral, autonomous actors with ethical commitments to those around them (Summerville and Adkins, 2008).

What is apparent here is that the NSW DPI is advocating disjunctive ideologies and goals through the message of ‘more habitat equals more fish’, and the use of case studies to highlight what volunteers can achieve in conjunction with the state. The analysed texts construct recreational fishers as empowered volunteer citizens who are meaningfully able to improve the quality of natural capital for the benefit of themselves, their communities, and for future generations. This construction of recreational fishers may be conceptualised through two frames. The first is one that is individualised, focusing on the benefit to the recreational fisher herself through increased fishing opportunities that arise as a result of the improvements to habitat. The second is collectivised, emphasising a goal of giving back to the community and to future generations. These two frames are mutually reinforcing, however they exist in a relationship of uneasy tension, particularly given that much of the damage to fish habitats is caused by sources which recreational fishers have no control over. It is to this second frame, whereby the NSW DPI seeks to construct a sense of citizenship amongst recreational fishers that this chapter now turns.

### **5.2.3 Constructing a sense of citizenship**

The NSW DPI utilises discursive strategies that focus on constructing a sense of citizenship in order to foster participatory stewardship behaviours. This is a consistent discursive strategy that is utilised by the NSW DPI across texts and time. The NSW DPI positions fisheries as a

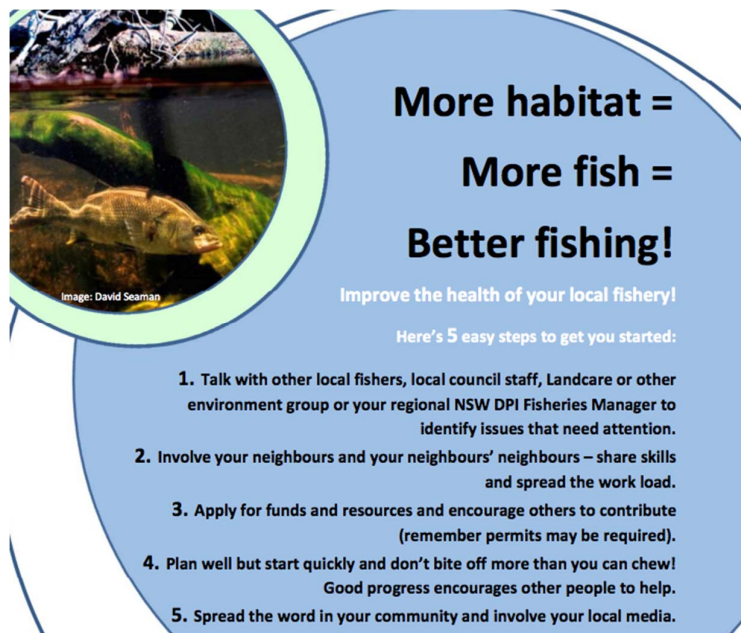
‘community owned resource’ that ‘we all have a responsibility to protect and safeguard... for present and future generations’ (NSW DPI, n.d.-d: para 1). This is evident in statements like ‘The restoration and rehabilitation of degraded fish habitat has become progressively more important in NSW as communities recognise the value of healthy waterways for their wellbeing’ (NSW DPI, 2016b: 3), and ‘Aquatic habitat rehabilitation has become progressively more important in NSW as the community recognises the benefits of natural, healthy systems’ (NSW DPI, n.d.-a.: 2). There is also an emphasis on linking involvement in these participatory activities to collective benefit. This can be seen in statements such as: ‘Habitat restoration activities such as replanting and/ or weeding creek banks... are also eligible. [G]et in quick to make sure your club and your local community benefits from this great opportunity!’ (NSW DPI Fisheries, 2016b). Here, the great opportunity is navigating the machinery of the state by applying for a Habitat Action Grant. As discussed earlier in this chapter, Habitat Action Grants are grants of money provided by the NSW DPI to non-state actors to complete projects aimed at improving the quality of degraded fish habitats (NSW DPI, n.d.-e). This construction of a sense of citizenship can also be seen in social media posts, such as the post shown in Image 7 This post on the DPI Fisheries Facebook page occurred next to a picture of a young boy fishing, which can be interpreted as NSW DPI discursively positioning readers to consider the benefits that participatory stewardship activities will have for younger generations.



**Image 7:** Child fishing with iconic Sydney Harbour Bridge in the background (NSW DPI Fisheries, 2016b)

One of the key challenges with constructing a sense of citizenship lies in the heterogeneous nature of the recreational fishing community. Recreational fishers are ‘a diverse community... the only common factor is participation in the activity labelled fishing’ (Baker, 2010: 19). One of the ways the NSW DPI tries to overcome this challenge is by emphasising

the benefits that improved habitat will have on fishing opportunities. This can be seen in the case examples provided in Fish Habitat Action! Making more fish...naturally (NSW DPI, 2016a). These case examples predominately focused on the projects undertaken by groups—fishing clubs and associations, environmental groups, as well as generic community volunteers. Only two case examples out of eleven spoke to projects delivered by individuals— one a landowner, and the other a recreational fisher. The overwhelming focus of these case examples was on the impact collective community-driven efforts may have in delivering positive environmental outcomes. As shown in Image 8, this focus conflicts with the takeaway message at the conclusion of this brochure, which in addition to reinforcing the NSW DPI’s educative message ‘More habitat = more fish = better fishing!’ also includes ‘Five easy steps to get you started!’ (NSW DPI, 2016a: 14 – a comparable list also appears on the last page of Recreational fishers make fish happen - NSW DPI, 2009: 16).



**Image 8:** Here’s 5 easy ways to get you started! (NSW DPI, 2016a: 14)

Traditionally, the term easy has been taken to mean doing something without great effort, or an activity that presents few difficulties. Here, the NSW DPI has constructed an individual:

- liaising with multiple stakeholders in order to identify degraded fish habitat which would benefit from rehabilitation,
- convincing members of the community to volunteer their time and skills to the proposed project,

- complying with any relevant legislative or regulatory requirements, whilst at the same time completing a grant application process,
- communicating the plan and outcome of the efforts the volunteers have put into the project to members of the community as well as to the local media,

in order to restore an asset that they do not own or have the responsibility to take care of as being easy.

Taking all of the analysed texts into account, there is a clear undercurrent running through the discursive strategies being utilised by the NSW DPI. This undercurrent constructs a sense of citizenship amongst recreational fishers, emphasises the altruism of volunteering and points to the benefits of recreational fishers collaborating with government. One walks away with a clear sense that non-state actors are being positioned to accept responsibility for fixing a problem that has traditionally fallen squarely within the role of the state, and questions are raised around the reasonableness of this approach. It is to this attempt to shift responsibility for ameliorating degraded fish habitats to non-state actors, and in particular recreational fishers, that this chapter now turns.

### **5.3 Shifting responsibility for fisheries habitat management to recreational fishers**

An analysis of the selected texts highlights how non-state actors—fishing clubs, community groups, recreational fishers and landholders—are constituted as moral, political and authoritative actors by the NSW DPI, and by extension being responsabilised to achieve policy outcomes which have historically fallen within the responsibility of the state to deliver. The aim is not necessarily for recreational fishers and other non-state actors to actively participate in authoring, contesting and debating policy; rather, the aim is to position them to accept responsibility for performing certain prescribed roles (Lister, 2015). As has been previously established in this chapter, the NSW DPI has framed the solutions to fish habitat degradation as being underpinned by more effective communication techniques, and a greater focus on education of key users of fish habitats. The view within the NSW DPI is that this will mobilise non-state actors to increase their involvement in participatory stewardship activities. The underlying intent of this is made clear by Baker (2010: 19):

This educative task should be based on best practice principles, reflecting a progression that begins with an appreciation and awareness of aquatic environments, expands to include the acquisition of knowledge and the development of skills for interacting with the environment, and culminates in ascription of personal responsibility to the care of aquatic resources and responsible behaviour to them. Fish



habitat is part of the commons, the environment that provides ecosystem goods and services and belongs to everyone. Assuming responsibility for improving an area of habitat means that other people, who may have done nothing to contribute, will benefit or even profit. ‘Why should I?’, ‘It’s not my responsibility’ and ‘What difference will fixing up this small bit make?’ are illustrative to barriers to engagement associated with working on the commons.

This position frames the commons as being owned by everyone, a statement which, particularly in light of the regulatory impost of the Fisheries Management Act, is a stretch at best. There are regulative mechanisms associated with how individuals use commons such as fish habitats, perhaps more so than that which are associated with privately owned land. It is also worth noting the move to encourage individuals to assume responsibility for improving an area of habitat is not associated with a commensurate increase in their ability to use the resource. This viewpoint also fails to consider that these resources are actually owned by the state, and that individuals pay a variety of taxes (including, for recreational fishers, a recreational fishing licencing fee) which is specifically levied to ensure the sustainability of the fishery, and performing habitat restoration activities.

Responsibilised actors, be they individuals or those acting as part of a club, are constructed as virtuous, particularly when they accept responsibility for maintaining the property of the state. For example: ‘... Bass Sydney took matters into their own hands and applied to Council for co-management of the reserve. With approvals granted, the Club applied for a habitat action grant to initiate rehabilitation of the site’ (NSW DPI 2016a: 6). In this case example, the NSW DPI state that the Club are ‘aware that their hard efforts need to be preserved’ and that they have committed to maintaining the site (which is an asset owned by the State) for five to ten years (NSW DPI 2016a: 6). The case example further notes that the Club has reached the ‘considerable milestone’ of 1000 hours of volunteer labour allocated to maintaining and restoring this site (NSW DPI 2016a: 6). The actions of the Club are lauded and celebrated by the NSW DPI as a positive example that other clubs can follow. Although the efforts of the Bass Sydney Club were considerable, non-state actors are often encouraged to start small - ‘We all just need to start somewhere, even in our own backyard’ (NSW DPI 2016a: 12). Within this context, the term ‘our own backyard’ is used to refer to state assets.

The push to create responsibilised citizens is not always overt. The NSW DPI has developed an educational program for primary school students. The program ‘Get Hooked–It’s Fun to Fish’ states it will ‘provide students with the basic skills necessary for recreational fishing with the view that it will become a lifelong interest’ and that it ‘introduces students to the concept of sustainable quality aquatic habitats by practicing safe and responsible fishing’

((NSW DPI n.d.-c: para 3). Throughout the program, there is an emphasis each week on fostering responsabilised behaviours i.e. take what you need, fish with friends, you're the solution to water pollution, throw the little ones back, don't leave your tackle behind and quality catchments equals quality fish (NSW DPI, n.d.-c). Shown in Image 9 these lessons are collectively known as 'The Six Codes'. These codes are evidence of policymakers attempts to inculcate within participants an appropriate moral code and mode of behaviour which they will carry within them, and arguably are further evidence of manifestations of responsabilisation.

### The Six Codes

**Code 1: 'Take only what you need'** - The importance of the food chain and how taking too many of one species of fish may affect the entire chain, so only take enough for your own.

**Code 2: 'Fish with friends'** - Safety near waterways, awareness of safe fishing conditions and also the importance of always having a responsible fishing friend to go fishing with you.

**Code 3: 'You're the solution to water pollution'** - How to identify and reduce the impact their actions may have on waterways, in particular the impact litter can have on aquatic species.

**Code 4: 'Throw the little ones back'** - Students investigate the rules and regulations that relate to the size of fish you are allowed to catch and why we need to keep certain species and sizes of fish for the future.

**Code 5: 'Don't leave your tackle behind'** - Students develop an understanding of the ways they can reduce the risk to aquatic species by ensuring they are responsible and careful fishers with a respect to the environment they are fishing in.

**Code 6: 'Quality catchments equal quality fish'** - Students investigate the complex nature of a catchment and develop an understanding of the impacts of human activity in one waterway and how it can impact the entire catchment.

**Image 9:** Get Hooked: It's Fun to Fish! (NSW DPI, n.d.-c: para 4)

## 5.4 Conclusion

This chapter commenced by establishing how the NSW DPI constructs the solutions to the problem of fish habitat degradation. An analysis of the texts on the NSW DPI's website identified the solutions to rehabilitating fish habitats. These solutions include programs such as the Fishers for Fish Habitat, Habitat Action Grants, Fish friendly programs, and programs aimed at living and working on a riverbank. These solutions also include activities linked to improving fish habitats, improving river flows for fish, floodgate management, weir remediation, road cross remediation, and research aimed at understanding Eastern King Prawn habitat. This chapter established that the NSW DPI sees the mobilisation of non-state actors, and in particular recreational fishers, as being key to successfully delivering these solutions. These efforts to mobilise recreational fishers are consistent across times and texts selected for analysis. In light of the international experience in the US and the UK, where the participation by recreational fishers in stewardship activities is greater than that in Australia, policymakers within the NSW DPI see an opportunity in recreational fishers who may be mobilised to deliver on conservation and rehabilitation aims.

Analysis of the discursive strategies used by the NSW DPI in pursuit of this aim sees links being drawn between improved fish habitats and greater recreational fishing

opportunities. The solutions as constructed by the NSW DPI are reliant on deploying effective educative and communicative techniques to demonstrate to key groups of users– recreational fishers – that they have a vested interest in increasing their involvement in participatory stewardship activities. The message ‘More habitat equals more fish’ is designed to mobilise recreational fishers by linking the ongoing environmental viability of their chosen leisure activity to the social and economic utility of the fish habitats they choose to target. For the NSW DPI, across time and texts, there is an evident view that increased education and better communication strategies will lead to increased involvement by recreational fishers in participatory stewardship activities.

This chapter then considered the underlying themes behind the solutions to fish habitat degradation. These were themes of voluntarism, of constructing a sense of citizenship within the heterogeneous group of recreational fishers, and of fostering collaborative behaviours between recreational fishers and the state. Whilst these themes may appear positive and altruistic on the surface, and whilst increased participation by recreational fishers in stewardship activities is overwhelmingly framed as a positive outcome, this chapter has demonstrated that these themes can be considered as manifestations of responsabilisation. Through the use of language and rhetoric, the NSW DPI is framing recreational fishers as not only being responsible for their own behaviour, but as being responsible for remedying the impacts of the behaviours of others. Here, the NSW DPI is endeavouring to govern through regulated choices by strategically creating moral, autonomous actors with ethical commitments to those around them. These ethical commitments extend to not just the current users of fisheries, but to future generations as well. Whilst considerations of intergenerational equity when it comes to the use of our natural resources are important, what has been uncovered throughout Chapters Four and Five is a clear disconnect between the stakeholder groups which are attributed as causing the degradation of fish habitats, and the stakeholder groups that are ascribed responsibility for ameliorating the degradation. Further, there is no evidence of an accompanying devolvement of power of involvement in decision making to recreational fishers. The policy levers are firmly within the control of the NSW DPI. Instead, recreational fishers are being asked to ameliorate the condition of assets they do not own, and for which they are not primarily to blame for their degraded state. Whilst the NSW DPI is leaning on educative and communicative strategies in order to draw links between the ongoing viability of recreational fisher’s chosen leisure activity, there is evidence of a neoliberalised agenda of governance at play.

Chapters Four and Five have completed the third step of Yanow's approach to interpretive policy analysis as it relates to the three research questions. These two chapters have articulated how the degradation of NSW fish habitats is framed in stewardship policy, how the solutions to the degradation of NSW fish habitats are constructed in stewardship policy, and which stakeholders are attributed with responsibility for enacting these solutions. In doing so, this research has uncovered a clear disconnect between the stakeholders that are responsible for the degradation of fish habitats, and which stakeholders the NSW DPI is ascribing responsibility for ameliorating this degradation. The final chapter of this thesis, Chapter Six, will consider in greater depth the points of conflict evident in this approach, as well as the implications of same. In doing so, Chapter Six will complete the fourth step, and first two stages of the fifth step of Yanow's (2000) approach to interpretive policy analysis.

# Chapter Six – Fishers Are Doing It For Themselves?

## 6.0 Introduction

There is no doubt that the challenges associated with contemporary fisheries management are complex. The influence of neoliberal thought on policymaking, the challenges associated with responding to increasingly complex environmental problems with fewer resources, and managing stakeholder interests in a way that allows for successful policy execution have all played a role in influencing the efficacy of public policy. In conjunction with the traditional regulatory toolbox, policymakers are increasingly looking to foster voluntary behaviours in non-state actors in order to deliver on their policy aims. The desire to increase the participation rates of recreational fishers in stewardship activities can be framed as symptomatic of an ascendant neoliberal ideology (Measham et al., 2005; Fletcher, 2010). This is not a desire that is limited to managers of fisheries; across the natural resource management space policymakers are increasingly viewing key stakeholder groups as a core part of delivering the solutions to environmental challenges.

In answering the three research questions central to this project, it was identified that there is a dissonance between which actors are framed as being the causal agents of the degradation of NSW fish habitats, and which actors are ascribed responsibility for enacting the NSW DPI's policy solutions. Through the case study analysis undertaken during this research, this thesis has sought to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy within NSW. Chapter Six commences by recounting the objectives of this research, before discussing its key findings, and in particular the implications of the current framing approach as adopted by the NSW DPI. This discussion will satisfy the fourth step, as well as the first two parts of the fifth step of Yanow's (2000) approach to interpretive policy analysis. These steps seek to show the points of conflict which reflect different ways of seeing, the implications of different meanings and interpretations for policy formulation and/ or action, and that differences reflect different ways of seeing. This chapter then articulates the theoretical and practical contribution made by this research to the body of knowledge, before discussing the key limitations of this study and opportunities for future research. This chapter concludes with a discussion around the broader implications of this research project.

## 6.1 Key findings of this research

The aim of this research was to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy. By doing so, this research identified the discursive strategies used to attribute blame for fish habitat degradation, and whether there was a dissonance between to whom blame is attributed and the stakeholder groups which the NSW DPI is advocating take responsibility for remedying the problem. In pursuit of this aim, this research answered three research questions:

1. How is the degradation of NSW fish habitats framed in stewardship policy?
2. How are solutions to the degradation of NSW fish habitats constructed in stewardship policy?
3. Which stakeholders are attributed with responsibility for enacting these solutions?

The research adopted the perspective of social constructionism, and subsequently applied Yanow's (2000) approach to interpretive policy analysis in order to answer these three research questions and achieve the stated research aims. This research was concerned with sensemaking – how policy actors came to frame and problematise policy issues, and the way they seek to mobilise non-state actors to deliver proposed solutions on their behalf. This research aimed to complement and extend the existing focus in the literature by drawing links to communicative artifacts authored by the NSW DPI which are focused on fish habitat and fish habitat rehabilitation. By doing so, this research was able to explore how the NSW DPI frames problems and solutions when it comes to ensuring the ongoing economic, social, and ecological utility of fish habitats.

The first research question sought to identify how the degradation of NSW fish habitats is framed in stewardship policy. The analysis of the selected texts in Chapter Four demonstrated that the NSW DPI draws heavily on scientific evidence and claims in order to explain the environmental challenges facing the state's fish habitats. The cause of the degradation, and the ongoing threats are constructed as diffuse, and being much broader than can be attributed to any one stakeholder group. This analysis also identified that there was an interesting divergence when it came to framing the role that recreational fishers have played as causal agents of fish habitat degradation. The analysis also identified that the NSW DPI (and recreational fishers themselves) have tended to play down the impact that recreational fishing has had on fish habitat, despite emerging evidence suggesting the impact is at least commensurate with that of commercial fishing.

The second research question sought to identify how solutions to the degradation of NSW fish habitat are constructed in stewardship policy. In Chapter Five, the analysis of the selected texts established that the NSW DPI sees the mobilisation of non-state actors – and in particular recreational fishers – as being key to successfully delivering the proposed solutions. The NSW DPI seeks to achieve this by drawing links between improved fish habitats and greater recreational fishing opportunities. The solutions as constructed by the NSW DPI are reliant on deploying a range of effective educative and communicative techniques to demonstrate to the target audience – in this case recreational fishers – they have a vested interest in increasing their involvement in participatory stewardship activities. The message ‘more habitat equals more fish’ is used as a clarion call, designed to mobilise recreational fishers by linking the ongoing environmental viability of their chosen leisure activity to the social and economic utility of the fish habitats they choose to target.

The third research question sought to identify which stakeholders are attributed with responsibility for enacting these solutions. Chapter Five established that whilst a broad array of stakeholders are ascribed responsibility for certain solutions, recreational fishers are primarily attributed with carrying out their implementation. As this thesis has uncovered, this is as a result of both the sheer number of people engaging in recreational fishing as an activity, as well as a result of the vested interest that recreational fishers have in quality fish habitat.

The aim of this research was to understand the implications of the current framing of fisheries degradation and rehabilitation responsibilities in stewardship policy. Fisheries management has historically tended to rely on ad-hoc, reactive approaches to policy development and enactment, details of which were outlined in Chapter Four. On occasion, these approaches have sometimes failed to produce desired behavioural changes, which may be attributed to the objectives, possible actions and resulting outcomes being treated as simple and known (Irwin et al., 2011). Whilst the traditional regulatory toolbox used to manage recreational fisheries is diverse, it is apparent that policymakers see an opportunity to deploy new mechanisms in order to achieve compliance and environmental objectives, relying heavily on voluntarism (Cooke et al., 2013). With this in mind, this research identified that there is a lack of discursive connection between which actors are framed as the causal agents of the degradation of fish habitat in NSW and which users are ascribed responsibility for implementing the constructed solutions. This is a clear point of conflict within the analysed texts. By keeping the blame for fish habitat degradation diffuse, the collated corpus of texts, whose audience is primarily recreational fishers, do not provide the full story. There is a significant disconnect between causal attribution, and the attempts to responsabilise

recreational fishers to take ownership of the problem of degraded fish habitats. The mobilisation of recreational fishers occurs in a seemingly decontextualised, depoliticised mode, and from the analysed texts it is unclear whether this is recognised by policymakers.

The participation of non-state actors in delivering policy solutions is often framed as positive - public participation tools, including IAP2 (2014) can be viewed as participatory buffets from which appropriate strategies can be selected based on levels of risk and the complexity of the issues at hand. An analysis of the selected texts highlights however how non-state actors – and particularly recreational fishers – are being constituted as moral, political and authoritative actors by the NSW DPI, and by extension are being responsabilised to ameliorate degraded fish habitats.

The desire to mobilise recreational fishers appears to be predicated on the raw number of users of fish habitats – in short, there are a much larger number of recreational fishers than there are developers, farmers, and owners of large-scale industry, whose activities are the primary cause of fish habitat degradation. A central element of this strategy to mobilise recreational fishers relies on the principles of voluntary participation in government by a responsabilised public. As uncovered in Chapter Five, volunteer achievements and contributions are celebrated in texts whose primary audience is recreational fishers, and the NSW DPI uses language to suggest that the vast time and resource commitments required of volunteers are not as all-consuming as they may appear. Recreational fishers are positioned as empowered, perfect, active citizens. The NSW DPI integrates various civic and educational activities into their toolkit whose aim is to mobilise recreational fishers and other stakeholders to increase their involvement in stewardship activities, with a heavy focus on educative approaches grounded in scientific rhetoric. The aim is to at least partially shift responsibility for fish habitat management from the state (which is the owner of the fish habitat resources), to recreational fishers. Chapter Four established that although recreational fishers are one of the primary users of fish habitat, as a stakeholder group they are not the key polluters, nor are they constructed as one of the agents causing the degradation. Ultimately what this means is that recreational fishers are being asked to disproportionately shoulder the stakeholder burden for repairing assets they do not own

Baker (2010) suggests that ‘Fish Habitat’ describes a particular set of features which are present in aquatic environments. These environments are described as being largely degraded, under pressure from aquatic and terrestrial factors, and subject to broader, long-term climate change’ (Baker, 2010). By necessity, these factors will impact the effectiveness of any habitat rehabilitation activities. Despite the relative lack of control recreational fishers are able to exert



over these broader influences which can severely impact fish habitats, and despite the potential for catastrophic failures due to both human and natural influences, the ultimate intention appears to be for recreational fishers to embrace the stewardship of these environments.

This discussion has satisfied the fourth step, and first two stages of the fifth step of Yanow's (2000) approach to interpretive policy analysis. There is a demonstrated conflict between the stakeholders to whom blame is attributed and the stakeholders ascribed responsibility to remedy the degraded state of fish habitats. The application of the theory of responsabilisation to this case study has identified the implications of an alternate way of interpreting policy, has also demonstrated through the use of interpretive policy analysis that these differences reflect different ways of seeing.

## **6.2 Research contribution**

This research connected disparate theories relating to neoliberalism, governance, voluntarism and responsabilisation, and used these to explore the discursive strategies utilised by the NSW DPI to frame options for problems and solutions when mobilising stakeholders to become involved in stewardship activities. As established in the literature review, connections between neoliberalism, governance, responsabilisation and environmental policy remain under-explored in critical scholarship (McCarthy and Prudham, 2004). Although reviews of the neoliberalisation of the state have emphasised the reorientation of planning activities towards market mechanisms, the associated rescaling of environmental responsibility to the individual has received less attention. This case study provided an excellent opportunity to explore these concepts in a new setting, given the actions of policy actors in NSW DPI. As a subset of environmental governance, fisheries management provided an excellent vehicle through which to study these issues.

If actors are understood in terms of the consequences that flow from their actions as rights and duty bearing units, then a shift in the rights and duties assigned to actors will change the social consequences of their actions and simultaneously the discursive nature of their agency (DeWinter, 2001; Shamir, 2008). This position has previously been articulated in the context of corporations assuming socio-moral obligations that were once considered solely the role of the state. Although focussing on recreational fishers the arguments in this thesis can be extended to citizens more broadly. Through the prism of responsabilisation, one can see a discursive shift underway, with social actors taking on additional responsibilities for tasks previously within the purview of the state. Abrahamsen (2004) frames citizens as agents who are conscripted – active creators of their own future rather than objects of external statist

benevolence. This research suggests that ideally, this is how the NSW DPI would like to position non-state actors such as recreational fishers – rather than people passively benefiting from the NSW DPI remedying degraded fish habitat themselves, instead recreational fishers are being positioned to take charge of their destinies and that of the environments of which their leisure activity depends. In such a paradigm, responsibility can be understood as one of obligation to those individuals care about the most – their family, neighbours, colleagues, and ultimately the community (Crawshaw, Bunton, & Gillen 2003; Summerville & Adkins, 2008).

There is research which explores how state actors problematise prevailing social practices and seek to render appropriate modes of governing by non-state actors (see Burchell, Gordon & Miller, 1991; Miller & Rose, 2008; Shamir, 2008; Hamann, 2009). Governments achieve this through the use of discourses and discursive assemblages. Such discourses can be understood as providing frames which incorporate a diagnosis or representation of a problem situation – generally including an attribution of blame or causality, and a prognosis or intervention which suggests a solution (Pyysiäinen, Halpin & Guilfoyle, 2017; Lemke, 2001). As discussed in the literature review a solid body of literature documents a range of instances where neo- or ‘advanced liberal’ responsabilisation has been brought forth by discursive reframing along these lines, including public sector management (du Gay, 1996a) and management of unemployment (Dean, 1995), education (Peters, 2001), health care (Cohen & Musson, 2000; Doolin, 2002), regional development (Raco, 2003; Herbert-Cheshire & Higgins, 2004), agriculture (Higgins & Lockie, 2001; Pyysiäinen & Vesala, 2013), consumer culture and ‘consumerism’ (du Gay, 1996b; Barnett et al., 2008). Neoliberal discourses diagnose as problematic such societal conditions that prevent individual agents from effectively assuming responsibility for outcomes to themselves. As to the prognosis, the solution offered, neoliberal discourses set out to reframe and reconfigure the conditions so that the fate of the agents – and the consequences of their undertakings – depend predominately on their own decisions, actions and abilities (Pyysiäinen, Halpin & Guilfoyle, 2017). Thus, as put by Lemke (2001: 201), the consequences of the action are borne by the subject alone, who is solely responsible for them.

Shamir (2008) argues that a crucial inversion takes place once the praxis of responsabilisation and underlying construction and affirmation of moral agency begins to flow in all directions. Whilst this position has been articulated in the context of corporations assuming socio-moral obligations that were once considered state obligations, the argument can be extended to citizens, and in the context of this thesis, non-state actors such as recreational fishers whom the NSW DPI is attempting to mobilise to accept responsibility for

habitat activities. By contrast, Abrahamsen (2004) frames citizens as agents who are conscripted – active creators of their own future rather than objects of external statist benevolence. In such a paradigm, responsibility can be understood as one of obligation to those individuals care about the most; their family, neighbours, colleagues, and ultimately the community (Crawshaw, Bunton, & Gillen 2003; Summerville and Adkins, 2008). While the severity of economic consequences for not modifying behaviour may vary significantly between policies, the disciplinary force is purely economic (Cooper & Rosin, 2014).

While the traditional regulatory toolbox used to manage recreational fisheries is diverse, this research has identified that policymakers are increasingly relying on what are arguably less coercive mechanisms to achieve environmental objectives. This research considered the ramifications of positioning recreational fishers to take responsibility for rehabilitating degraded fish habitats, an issue for which they are not the primary cause. Whilst the resourcing pressures which policymakers are dealing with need to be recognised, it could be suggested that recreational fishers are being expected to shoulder a disproportionate stewardship burden. Whilst this burden is framed in terms of civic responsibility, it is ultimately a manifestation of responsabilisation.

### **6.3 Limitations of current project and guidance for future research**

The key limitation of this research is that internal divisions between different stakeholder groups were unable to be effectively identified and critiqued. This limitation applies to recreational fishers, who as this research identified are a heterogeneous group with little in common but their shared recreational activity of choice. This limitation also applies to policymakers within the NSW DPI, as well as other divisions that may exist between key stakeholder groups. The scope of this research was limited to considering a corpus of texts implicitly or explicitly authored by the NSW DPI. Future research projects may wish to move beyond documentary analysis, and use semi-structured interviews as a mechanism for exploring whether these internal divisions exist. Alternatively, future research opportunities may consider whether the identified dissonance in the selected corpus of texts extends to other artifacts which are produced by the NSW DPI. Further, conducting semi-structured interviews with recreational fishers would be useful to gain a deeper understanding of how they respond to the responsabilisation agenda.

Future research opportunities also lie in testing whether the discursive strategies utilised by the NSW DPI are deployed by state actors in other national and international jurisdictions. This research is potentially relevant to all neoliberal states, and while the content of

responsibilisation may vary, it is likely to manifest itself across a range of public policy initiatives, including those within the environmental governance, health and education spaces. For example, whilst the NSW DPI has been at the forefront of mobilising recreational fisher involvement in participatory stewardship activities, the Victorian government is also a named partner of the Fish Habitat Network (Fish Habitat Network, n.d.). Future research drawing on the same methodological choices made during the course of this project would be useful in determining whether the strategies pursued by the NSW DPI in framing the problem of, and solution to, fish habitat degradation cross jurisdictional lines.

Finally, much of the imagery and rhetoric utilised by the NSW DPI deployed masculinised narratives and tropes. Analysis of the use of gendered narratives was outside of the scope of this research but there is scope for future research to unpack these gendered narratives and their potential impact on the involvement of non-state actors in participatory stewardship activities.

#### **6.4 Conclusion and broader implications**

*Homo economicus*. He sits at the heart of neoliberal notions of citizenship. He is the ideal, entrepreneurial, and self-sufficient individual, vested in protecting his own interests (McCarthy & Prudham, 2004; Foucault, 2008). Left to his own devices, he will undermine social goals in pursuit of profit. With the appropriate policy scaffolding and incentive structures however, this individual self-interest can be directed towards socially productive ends (Foucault, 2008; Fletcher, 2010). In the neoliberal construction of ideal government, the role of government is to ensure the appropriate policy scaffolding and incentive structures are in place in order to achieve policy goals.

In its neoliberal incarnation, governance is premised on facilitating private forms of authority – private actors increasingly assume regulatory roles through government facilitating privatisation, franchising, outsourcing and deregulation of functions previously the purview of the state (Kirby, 2006; Shamir, 2008). This distribution of authority to other state and non-state actors occurs in a context in which they assume the economic enterprise form, follow principles of economic sustainability and cost-benefit risk management, and adhere to standards of performance that have a distinct economic undercurrent running through them (Shamir, 2008). Critically for this thesis and understanding fisheries governance, it promotes a devolvement of responsibility (although not always associated power) downward and outward, transferring responsibilities to localities and the private sector (Lobel, 2004).

Granek et al.. (2008: 1131) suggest that there are three primary factors which influence the likelihood of recreational fisher involvement in habitat stewardship activities. These factors are the stakeholder's degree of stewardship, the scale of the resource, user group or management structure, and the source of the impacts of the fishery. Stakeholder environmental stewardship was identified as a critical factor in habitat management activities due to it facilitating support of fisheries management and conservation measure, and fostering trust between different actors. Fishers who demonstrate stewardship behaviours, brought about through either personal experience or effective education campaigns, are more likely to be involved in such participatory activities. Granek et al.. (2008) go on to suggest that the smaller the fishery, the more likely fishers are to feel responsible for its conservation. Finally, involvement is related to the perceived nature of the threat to the fishery – when fishers are 'protecting a valued resource from threats external to recreational fishing such as commercial fishing, habitat destruction or invasive species, fisher involvement is likely to be high' (Granek et al., 2008: 1131). Hillborn (2008) also identifies the cooperation of stakeholders as one of the three characteristics of well-managed fisheries that are environmentally, economically and socially successful (the other two being restricted access and maintenance of biological productivity).

This thesis has explored some of the challenges faced by contemporary policymakers. There is a clear tension underpinning how government resources are deployed in order to ensure the ongoing social, environmental and economic utility of natural resources. What is self-evident is that, in the contemporary neoliberal paradigm, governments do not have the resources or the capacity to solely shoulder the responsibility for ameliorating degraded fish habitat. The core contemporary challenge for government lies in determining how to best deploy limited resources in order to achieve policy aims. Australian policymakers have looked to the international experience in mobilising recreational fishers and may be attempting to replicate that success. What does not appear to have been acknowledged is that recreational fishers are being disproportionately ascribed the responsibility for remedying the degraded state of fish habitats. There is a clear disconnect between the agents which are framed as causal agents of the degradation, and the actors which are framed and named as being key to delivering the solution. The NSW DPI is not seeking to remunerate recreational fishers for their involvement in participatory stewardship activities, and as this thesis established, the time and resource commitment being sought from recreational fishers and fishing groups is not insignificant.

The concept of stewardship is centred on the responsible use of natural resources in a way that takes into consideration the interests of future generations as well as society as a whole. There is an emphasis on an answerability to society for ensuring that our natural resources have continued social, economic and environmental utility. The actions of the NSW DPI, whereby the primary causal agents of damage to fish habitats are obfuscated in authored texts, and where one stakeholder group is being asked to shoulder a disproportionate burden to remedy this damage, are arguably not in the spirit of the principles of stewardship. The state does not have unlimited resources or money to solve the problem alone, particularly given the vast areas that natural resource managers have carriage of within the Australian context. The outcome of the embrace of neoliberal principles here, whereby there is an evident desire to create congruence between economic rationality and moral responsibility, has seen mobilising recreational fishers as low hanging fruit, whilst industry has not been expected to internalise its externalities. This thesis has demonstrated that the implications of this are worthy of further consideration by academics and policymakers alike.

# References

- Abrahamsen, R. (2004). The power of partnerships in global governance. *Third World Quarterly*, 25 (8), 1453 – 1467.
- Adam, B. (2005). Constructing the neoliberal sexual actor: Responsibility and care of the self in the discourse of barebackers. *Culture, Health and Sexuality*, 7(4), 333 – 346.
- Al Mamun, A. (2015). Leadership in community based organisations: What fisheries co-management teaches us. *International Journal of Social Science Research*, 3(1), 172 – 188.
- Alanen, L. (2015). Are we all constructionists now. *Childhood*, 22(2), 149 – 153.
- Alicke, M.D. (2000). Culpable control and the psychology of blame. *Psychological Bulletin*, 126(4), 556 – 574.
- Althaus, C., Bridgman, P., & Davis, G. (2012). *The Australian Policy Handbook*. 5<sup>th</sup> edition. Allen & Unwin: Sydney.
- Anderson, N. H. (1991). Psychodynamics of everyday life: Blaming and avoiding blame. In N. H. Anderson (Ed.), *Contributions to Information Integration Theory Volume II: Social* (243–275). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Andersson, E., Barthel, S., & Ahrne, K. (2007). Measuring social–ecological dynamics behind the generation of ecosystem services. *Ecological Applications*, 17(5), 1267 – 1278.
- Apostolidis, L., & S. Papatyropoulos. (2002). *The Volunteering Movement in Greece and the Civil Society*. Athens: Greek Letters.
- Arlinghaus, R., Mehner, T., & Cowx, I.G. (2002). Reconciling traditional inland fisheries management and sustainability in industrialized countries, with emphasis on Europe. *Fish and Fisheries*, 3(4), 261 – 316.
- Arlinghaus, R., Cooke, S.J., Sutton, S.G., Danylchuk, A.J., Potts, W., K., Alos, J., da Silva, E.T., Cowx, I.G., & van Anrooy, R. (2016). Recommendations for the future of recreational fisheries to prepare the social-ecological system to cope with change. *Fisheries Management and Ecology*, 23(3 – 4), 177 – 186.
- Arnstein, S. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216 – 224.
- Asah, S.T., & Blahna, D.J. (2012). Motivational functionalism and urban conservation stewardship: implications for volunteer involvement. *Conservation Letters*, 5(6), 470 – 477.
- Atkinson, P., & Coffey, A. (2004). Analysing documentary realities in Silverman, D. (Ed) *Qualitative research*, (77 – 92), Sage: London.
- Aukes, E., Lulofs, K., & Bressers, H. (2017). Framing mechanisms: the interpretive policy entrepreneur’s toolbox. *Critical Policy Studies*, 1 – 22.

- Australian and New Zealand Environment and Conservation Council. [ANZECC] (1998). *Guidelines for establishing the National Representative System of Marine Protected Areas*. Environment Australia: Canberra.
- Australian Dictionary of Biography. (2006). *Driver, Richard (1829 – 1880)*. Retrieved from <http://adb.anu.edu.au/biography/driver-richard-3442>
- Australian Government, Department of Agriculture and Water Resources (2015). *Australian fisheries and aquaculture statistics 2014*. Retrieved from [http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2014/AustFishAquacStats\\_2014\\_v1.0.0.pdf](http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2014/AustFishAquacStats_2014_v1.0.0.pdf)
- Aykan, B., & Güvenç-Salgırlı, S. (2015). Responsibilizing individuals, regulating health: debating public spots, risk, and neoliberal governmentality in contemporary Turkey. *New Perspectives on Turkey*, 53, 71 – 92.
- Babbie, E. R. (2013). *The Practice of Social Research*. Andover: Wadsworth.
- Baker, E. (2010). *More habitat... more fish: A strategy for educating recreational fishers about habitat*. Retrieved from Fish Habitat Network website: [http://www.fishhabitatnetwork.com.au/pdfs/educating%20Recreational%20Fishers%20Strategy\\_final.pdf](http://www.fishhabitatnetwork.com.au/pdfs/educating%20Recreational%20Fishers%20Strategy_final.pdf)
- Balcombe, S.R., Sheldon, F., Capon, S.J., Bond, N.R., Hadwen, W.L., Marsh, N., & Bernays, S.J. (2011). Climate-change threats to native fish in degraded rivers and floodplains of the Murray–Darling Basin, Australia. *Marine and Freshwater Research*, 62(9), 1099 – 1114.
- Barkay, T. (2009). Regulation and voluntarism: A case study of governance in the making. *Regulation and Governance*, 3(4), 360 – 375.
- Barwick, M., Neville, P., Westaway, C., Cleary, B., Rowland, A., Hansard, A., Moore, A., & Li, O. (2015). *Rec-fishing Research 2.0: A Revitalised Approach to Addressing National RD&E Priorities and Increasing Investment and Co-investment in RD&E Relevant to the Recreational Sector*. Retrieved from: [http://www.frdc.com.au/research/Final\\_Reports/2013-401-DLD.pdf](http://www.frdc.com.au/research/Final_Reports/2013-401-DLD.pdf)
- Behagel, J.H., Arts, B., & Turnhout, E. (2017). Beyond argumentation: a practice-based approach to environmental policy. *Journal of Environmental Policy & Planning*, 1 – 13.
- Benford, R.D., & Snow, D.A. (2000). Framing processes and social movements: An overview. *Annual Review of Sociology*, 26, 611 – 639.
- Bennett, P.G. (2000). Applying precautionary principles: A conceptual framework. In M.P. Cottram, D.W. Harvey, R.P. Pape & J. Tait (eds) *Foresight and Precaution*. Volume 1 Balkema: Rotterdam.
- Berg, B. L., (2007). *Qualitative Research Methods for the Social Sciences*. 6<sup>th</sup> edition. Pearson Education: Boston.
- Bevir, M. (2008). *Key Concepts in Governance*. Sage: London.



- Bishop, P., & Davis, G. (2002). Mapping public participation in policy choices. *Australian Journal of Public Administration*, 61(1), 14 – 29.
- Bomberg, E. (2017). Shale we drill? Discourse dynamics in UK fracking debates. *Journal of Environmental Policy and Planning*, 19(1), 72 – 88.
- Bridge, G. (2004). Mapping the bonanza: geographies of mining investment in an era of neoliberal reform. *The Professional Geographer*, 56(3), 406 – 421.
- Brockington, D., Duffy, R., & Igoe, J. (2008). *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*. Earthscan: London.
- Brody, S.D. (2003). Measuring the effects of stakeholder participation on the quality of local plans based on the principles of collaborative ecosystem management. *Journal of Planning Education and Research*, 22(4), 407 – 419.
- Brooks, K., & Fairfull, S. (2017). Managing the NSW coastal zone: restructuring governance for inclusive development. *Ocean and Coastal Management*, 150, 62 – 72.
- Brooks, K., Schirmer, J., Pascoe, S., Triantafillos, L., Jebreen, E., Cannard, T., & Dichmont, C.M. (2015). Selecting and assessing social objectives for Australian fisheries management. *Marine Policy*, 53, 111 – 122.
- Bruyere, B., & Rappe, S. (2007). Identifying the motivations of environmental volunteers. *Journal of Environmental Planning and Management*, 50(4), 503 – 516.
- Bryson, J. (1995) *Strategic Planning for Public and Nonprofit Organizations*. JosseyBass: San Francisco.
- Bryson, J.M. (2004). What to do when stakeholders matter: stakeholder identification and analysis techniques. *Public Management Review*, 6(1), 21 – 53.
- Bryson, J., Cunningham, G. & Lokkesmoe, K. (2002) What to do when stakeholders matter: The case of problem formulation for the African American Men Project of Hennepin County Minnesota. *Public Administration Review*, 62(5) 568 – 584.
- Burgin, S. (2017). Indirect consequences of recreational fishing in freshwater ecosystems: An exploration from an Australian perspective. *Sustainability*, 9(2), 280 – 298.
- Byron, I., & Curtis, A. (2002). Maintaining volunteer commitment to local watershed initiatives. *Environmental Management*, 30(1), 59-67.
- Cameron, J., & Grant-Smith, D. (2005). Building citizens: Participatory planning practice and a transformative politics of difference. *Urban Policy and Research*, 23(1), 21 – 36.
- Cameron, J., & Grant-Smith, D. (2014). Putting people in planning: Participatory democracy, inclusion and power. In J. Byrne., N. Sipe., & J. Dodson (eds). *Australian Environmental Planning: Challenges and Prospects* (197 – 205). Routledge: London.
- Castree, N. (2008). Neoliberalising nature: the logics of deregulation and reregulation. *Environment and Planning A*, 40(1), 131 – 152.

- Ciplet, D., & Roberts, J.T. (2017). Climate change and the transition to neoliberal environmental governance. *Global Environmental Change*, 46, 148 – 156.
- Clary, E.G., Snyder, M., Ridge, R.D., Copeland, J., Stukas, A.A., Haugen, J. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, 74(6), 1516 – 1530.
- Cocklin, C., Dibden, J., & Mautner, N. (2006). From market to multifunctionality? Land stewardship in Australia. *The Geographical Journal*, 172(3), 197 – 205.
- Cohen, J., & Arato, A. (1992). *Civil Society and Political Theory*. MIT Press: Cambridge
- Colebatch, H.K. (2005). Policy analysis, policy practice and political science. *Australian Journal of Public Administration*, 64(3), 14 – 23.
- Colebatch, H.K. (2006). Accounting for policy in Australia. *Public Policy*, 1(1), 37 – 51.
- Cooke, S. J., & Cowx, I. G. (2004). The role of recreational fishing in global fish crises. *AIBS Bulletin*, 54(9), 857 – 859.
- Cooke, S.J., Suski, C.D., Arlinghaus, R., & Danylchuk, A.J. (2013). Voluntary institutions and behaviours as alternatives to formal regulations in recreational fisheries management. *Fish and Fisheries*, 14, 439 – 457.
- Cooke, B., & Moon, K. (2015). Aligning ‘public good’ environmental stewardship with the landscape-scale: Adapting MBIs for private land conservation policy. *Ecological Economics*, 114, 152 – 158.
- Copeland, C. (2012). *Recreational Fishers and Fish Habitat: Towards a New Paradigm for Australia*. Retrieved from the Churchill Trust website:  
[https://www.churchilltrust.com.au/media/fellows/Recreational\\_fishers\\_and\\_habitat\\_management\\_in\\_Australia\\_2012\\_C\\_Copeland.pdf](https://www.churchilltrust.com.au/media/fellows/Recreational_fishers_and_habitat_management_in_Australia_2012_C_Copeland.pdf)
- Crawshaw, P., Bunton, R., & Gillen, K. (2003). Health action zones and the problem of community. *Health and Social Care in the Community*, 11(1), 36 – 44.
- Creighton, C., Boon, P.I., Brookes, J.D., & Sheaves, M. (2015). Repairing Australia's estuaries for improved fisheries production—what benefits, at what cost. *Marine and Freshwater Research*, 66(6), 493 – 507.
- Creswell, J. W. (2013). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage: Los Angeles.
- Crowley, K. (2017). Up and down with climate politics 2013–2016: The repeal of carbon pricing in Australia. *Wiley Interdisciplinary Reviews: Climate Change*, 8(3), 1 – 12.
- Curtain, R. (2000). Good public policymaking: How Australia fares. *Agenda: A Journal of Policy Analysis and Reform*, 8(1), 33 – 36.
- Curtis, A. (1998). Agency–community partnership in Landcare: Lessons for state-sponsored citizen resource management. *Environmental Management*, 22(4), 563 – 574.

- Curtis, A., & De Lacy, T. (1996). Landcare in Australia: Does it make a difference. *Journal of Environmental management*, 46(2), 119 – 137.
- Curtis, A., & Van Nouhuys, M. (1999). Landcare participation in Australia: The volunteer perspective. *Sustainable Development*, 7(2), 98 – 111.
- Curtis, A., Ross, H., Marshall, G. R., Baldwin, C., Cavaye, J., Freeman, C., & Syme, G. J. (2014). The great experiment with devolved NRM governance: lessons from community engagement in Australia and New Zealand since the 1980s. *Australasian Journal of Environmental Management*, 21(2), 175-199.
- Dahl, R. (1957). The concept of power. *Behavioural Science*, 2, 201 – 205.
- Dardis, F.E. (2007). The role of issue-framing functions in affecting beliefs and opinions about a sociopolitical issue. *Communication Quarterly*, 55(2), 247 – 265.
- Davies, P.E., Harris, J.H., Hillman, T.J., & Walker, K.F. (2010). The sustainable rivers audit: assessing river ecosystem health in the Murray– Darling basin, Australia. *Marine and Freshwater Research*, 61, 764 – 777.
- Dean, M. (2009). *Governmentality: Power and Rule in Modern Society*. Sage: Thousand Oaks.
- Department of Environment & Conservation. (2006). *A guide for engaging communities in environmental planning and decision making*. Department of Environment and Conservation NSW. Retrieved from <https://www.environment.nsw.gov.au/resources/communities/2006288-Engaging-Communities.pdf>.
- DeWinter, R. (2001). The anti-sweatshop movement: Constructing corporate moral agency in the global apparel industry. *Ethics and International Affairs*, 15(2), 99 – 115.
- Dewulf, A., Craps, M., & Dercon, G. (2004). How issues get framed and reframed when different communities meet: A multi-level analysis of a collaborative soil conservation initiative in the Ecuadorian Andes. *Journal of Community & Applied Social Psychology*, 14(3), 177 – 192.
- DiEnno, C.M., & Thompson, J.L. (2013). For the love of the land: How emotions motivate volunteerism in ecological restoration. *Emotion, Space and Society*, 6, 63 – 72.
- Digeser, P. (1992). The four face of power. *The Journal of Politics* 54(4), 977 – 1007.
- Dryzek, J.S. (1997) *The Politics of the Earth: Environmental Discourses*. Oxford University Press: Oxford.
- Dryzek, J.S. (2001). Legitimacy and economy in deliberative democracy. *Political Theory*, 29(5), 651 – 669.
- Eden, C., & Ackerman, F. (1998). *Making Strategy: The Journey of Strategic Management*. Sage: London.
- Ehrenfeld, D. (2008). Neoliberalization of conservation. *Conservation Biology*, 22(5), 1091 – 1092.
- Elmer, L.K., Kelly, L.A., Rivest, S., Steell, S.C., Twardek, W.M., Danylchuk, A.J., Arlinghaus, R., Bennett, J.R., & Cooke, S.J. (2017). Angling into the future: Ten commandments for recreational

- fisheries science, management, and stewardship in a good anthropocene. *Environmental Management*, 60(2), 165 – 175.
- Emesh, E., Ako, R., Okonmah, P., & Obokoh, L. (2010). Corporations CNS and self-regulation: What lessons from the Global Financial Crisis? *German Law Journal*, 11(2), 230 – 259.
- Entman, R. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51 – 58.
- Environmental Planning and Assessment Act 1979* (NSW). Retrieved from <http://www.legislation.nsw.gov.au/maintop/search/inforce>.
- Etzioni, A. (1968). *The Active Society: A Theory of Societal and Political Processes*. The Free Press: New York.
- Eysenck, H.J. (1976). *Case Studies in Behaviour Therapy*. Routledge: London.
- Food and Agriculture Organisation of the United Nations (2016). *The State of World Fisheries and Aquaculture 2016: Contributing to Food Security and Nutrition for All*. Retrieved from <http://www.fao.org/3/a-i5555e.pdf>.
- Fish Habitat Network (n.d). *Fish Habitat Network Partners*. Retrieved from: <http://www.fishhabitatnetwork.com.au/partners>.
- Fisheries Management Act 1994* (NSW). Retrieved from <http://www.legislation.nsw.gov.au/maintop/search/inforce>.
- Fletcher, R. (2010). Neoliberal environmentalism: Towards a poststructuralist political ecology of the conservation debate. *Conservation and Society*, 8(3), 171 – 181.
- Flood, M.J., Stobutzki, I., Andrews, J., Ashby, C., Begg, G.A., Fletcher, R., Gardner, C., Georgeson, L., Hansen, S., Hartmann, K. & Hone, P. (2016). Multijurisdictional fisheries performance reporting: How Australia's nationally standardised approach to assessing stock status compares. *Fisheries Research*, 183, 559 – 573.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219 – 245.
- Foucault, M. (1978). *The History of Sexuality*. Pantheon Books: New York.
- Foucault, M. (2008). *The Birth of Biopolitics*. Palgrave Macmillan: New York.
- Frawley, J. (2015). Kissing fish: Rex Hunt, popular culture, sustainability and fishing practices. *Journal of Australian Studies*, 39(3), 307 – 325.
- Freeman, R. (1984). *Strategic Management: A Stakeholder Approach*. Pitman: Boston.
- Garland, D. (1996). The limits of the sovereign state: Strategies of crime control in contemporary society. *British Journal of Criminology*, 36, 445 – 466.
- Gergen, K.J. (1985). The social constructionist movement in modern psychology. *American Psychologist*, 40(3), 266 - 294.

- Gehrke, P.C., & Harris, J.H. (2001). Regional-scale effects of flow regulation on lowland riverine fish communities in New South Wales, Australia. *Regulated Rivers: Research and Management*, 17, 369 – 391.
- Gibbs, D., & Jonas, A.E. (2001). Rescaling and regional governance: The English Regional Development Agencies and the environment. *Environment and Planning C: Government and Policy*, 19(2), 269 – 288.
- Gladstone, W. (2014). Criticisms of science, social impacts, opinion leaders and targets for no take zones led to cuts in New South Wales' (Australia) system of marine protected areas MPA changes in Australia. *Aquatic Conservation*, 24(3), 287 – 294.
- Gooch, M. (2003). A sense of place: Ecological identity as a driver for catchment volunteering. *Australian Journal on Volunteering*, 8(2), 23 – 33.
- Granek, E.F., Madin, E.M.P., Brown, M.A., Figueira, W., Cameron, D.S., Hogan, Z., Kristianson, G., de Villiers, P., Williams, J.E., Post, J., Zahn, S., & Arlinghaus, R. (2008). Engaging recreational fishers in management and conservation: Global case studies. *Conservation Biology*, 22(5), 1125 – 1134.
- Grant-Smith, D. (2015). Implicating animals: The symbolic power of scapegoating animals in marine pollution debates. *Australasian Journal of Environmental Management*, 22(3), 270 – 284.
- Grant-Smith, D., & Edwards, P. (2011). It takes more than good intentions: Institutional and attitudinal impediments to engaging young people in participatory planning. *Journal of Public Deliberation*, 7(1), 1 – 19.
- Grant-Smith, D & McDonald, P. (2015). The practical potential of self-advocacy for improving safety outcomes for school-aged workers. *Journal of Youth Studies*, 18(1), 1257 – 1273.
- Gray, C. (2009) The responsabilization strategy of health and safety: Neo-liberalism and the reconfiguration of individual responsibility for risk. *British Journal of Criminology*, 49, 326 – 342.
- Greenwood, M. (2007). Stakeholder engagement: Beyond the myth of corporate responsibility. *Journal of Business Ethics*, 74(4), 315 – 327.
- Growns, I. (2008). The influence of changes to river hydrology on freshwater fish in regulated rivers of the Murray–Darling Basin. *Hydrobiologia*, 596, 203 – 211.
- Guba, E.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N. Denkin & Y. Lincoln (Ed.), *Handbook of Qualitative Research*, Sage: Thousand Oaks.
- Gunningham, N. (2009). The new collaborative environmental governance: The localization of regulation. *Journal of Law and Society*, 36(1), 145 – 166.
- Hacking, I. (1999). *The Social Construction of What?* Harvard University Press: Cambridge
- Hajer, M., & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: achievements, challenges, perspectives. *Journal of Environmental Policy and Planning*, 7(3), 175 – 184.

- Hajkowicz, S. (2009). The evolution of Australia's natural resource management programs: Towards improved targeting and evaluation of investments. *Land Use Policy*, 26(2), 471 – 478.
- Hames, F., Townsend, A., Ringwood, G., Clunie, P., and McPhail, J. (2014). Effective engagement of the Native Fish Strategy is delivered by coordinated and contextual effort. *Ecological Management and Restoration*, 15(S1): 13 – 27.
- Hardin, G. (1968). The tragedy of the commons. *Science*, 1(3), 243 – 253
- Harvey, D. (2005). *A Brief History of Neoliberalism*. Oxford University Press: Oxford
- Hansen, L. 2006. Critical next steps in research on public meetings and environmental decision making. *Human Ecology Review*, 13(2), 150 – 160.
- Head, B.W. (2007). Community engagement: Participation on whose terms? *Australian Journal of Political Science*, 43(3), 441 – 453.
- Head, B.W. (2014). Public administration and the promise of evidence-based policy: Experience in and beyond Australia. *Asia Pacific Journal of Public Administration*, 36(1), 48 – 59.
- Healey, P. (1992). Planning through debate: The communicative turn in planning theory. *The Town Planning Review*, 63(2), 143 – 162.
- Hendriks, C.M. (2007). Praxis stories: Experiencing interpretive policy research. *Critical Policy Analysis*, 1(3), 278 – 300.
- Herzele, A., & Aarts, N. (2013). My forest, my kingdom: Self-referentiality as a strategy in the case of small forest owners coping with government regulations. *Policy Sciences*, 46(1), 63 – 81.
- Howes, M., Tangney, P., Reis, K., Grant-Smith, D., Heazle, M., Bosomworth, K., & Burton, P. (2015). Towards networked governance: Improving interagency communication and collaboration for disaster risk management and climate change adaptation in Australia. *Journal of Environmental Planning and Management*, 58(5), 757 – 776.
- Hettne, B. (2005). Beyond the new regionalism. *New Political Economy*, 10(4), 543 – 571.
- IAP2 International Association for Public Participation Australasia. (2014). *IAP2's Public Participation Spectrum*. Retrieved from <https://www.iap2.org.au/resources/public-participation-spectrum>
- Ilcan, S., & Basok, T. (2004). Community government: Voluntary agencies, social justice, and the responsabilization of citizens. *Citizenship Studies*, 8(2), 129 – 144.
- Irwin, B.J., Wilberg, M.J, Jones, M.L & Bence, J.R. (2011). Applying structured decision making to recreational fisheries management. *Fisheries*, 36(3), 113 – 122.
- Isett, K.R., Mergel, I.A., LeRoux, K., Mischen, P.A., & Rethemeyer, R.K. (2011). Networks in public administration scholarship: Understanding where we are and where we need to go. *Journal of Public Administration Research and Theory*, 21(S1), i157–i173.
- Jacobs, K. (1999). Key themes and future prospects: Conclusion to the special issue. *Urban Studies*, 36(1), 203 – 213.

- Janssen, M., & Estevez, E. (2013). Lean government and platform-based governance—Doing more with less. *Government Information Quarterly*, 30, S1 – S8.
- Jentoft, S. (2007). In the power of power: The understated aspect of fisheries and coastal management. *Human Organisation*, 66(4), 426 – 437.
- Jentoft, S. (2011). Legal pluralism and the governability of fisheries and coastal systems. *The Journal of Legal Pluralism and Unofficial Law*, 43(64), 149 – 172.
- Jones, T.M. & Wicks, A.C. (1999) Convergent Stakeholder Theory. *Academy of Management Review*, 24(2), 206 – 221.
- Johnson, G. & Scholes, K. (2002). *Exploring Corporate Strategy*. 6<sup>th</sup> edition. Pearson Education: Harlow.
- Jørgensen, M.B. (2012). Legitimizing policies: How policy approaches to irregular migrants are formulated and legitimized in Scandinavia. *Etikk i praksis: Nordic Journal of Applied Ethics*, 6(2), 46 – 63.
- Jurin, R.R., Roush, D., & Danter, K.J. (2010). *Environmental Communication: Skills and Principles for Natural Resource Managers, Scientists, and Engineers*. Springer Science & Business Media. Retrieved from <https://link.springer.com/content/pdf/10.1007/978-90-481-3987-3.pdf>
- Kearney, R.E. (2001). Fisheries property rights and recreation/commercial conflict: Implications of policy development in Australia and New Zealand. *Marine Policy*, 25, 49 – 59.
- Khan, A.S., & Neis, B. (2010). The rebuilding imperative in fisheries: Clumsy solutions for a wicked problem. *Progress in Oceanography*, 87(1 – 4), 347 – 356.
- Kirby, M. (2006). Corporate governance, corporate law and global forces. In I. Ramsay (Ed.), *Corporate Governance and the Duties of Company Directors*. The Centre for Corporate Law and Securities Regulation: Melbourne.
- Kooiman, J., & Jentoft, S. (2009). Meta-governance: Values, norms and principles, and the making of hard choices. *Public Administration*, 87(4), 818 – 836.
- Krick, T., Forstater, T., Monaghan, P., & Silanpää, M. (2005). *The Stakeholder Engagement Manual: Volume 2 – The Practitioner's Handbook on Stakeholder Engagement*. Accountability, UNEP, & Stakeholder Research Associates Canada. Retrieved from <https://ccednet-rcdec.ca/en/toolbox/stakeholder-engagement-manual-volume-2-practitioners>.
- Krasny, M.E., Crestol, S.R., Tidball, K.G., & Stedman, R.C. (2014a). New York City's oyster gardeners: Memories and meanings as motivations for volunteer environmental stewardship. *Landscape and Urban Planning*, 132, 16 – 25.
- Krasny, M.E., Russ, A., Tidball, K.G., & Elmqvist, T. (2014b). Civic ecology practices: Participatory approaches to generating and measuring ecosystem services in cities. *Ecosystem Services*, 7, 177 – 186.

- Lawrence, G., Richards, C.A., & Cheshire, L. (2004). The environmental enigma: Why do producers professing stewardship continue to practice poor natural resource management? *Journal of Environmental Policy and Planning*, (3- 4), 251 – 270.
- Lawrence, G., Richards, C., & Lyons, K. (2013). Food security in Australia in an era of neoliberalism, productivism and climate change. *Journal of Rural Studies*, 29, 30 – 39.
- Lau, R.W.K. (2009). The contemporary culture of blame and the fetishization of the modern mentality. *Current Sociology*, 57, 661–83
- Levine, A. (2002). Convergence or convenience? International conservation NGOs and the development assistance in Tanzania. *World Development*, 30(6), 1043 – 1055.
- Li, T.M. (2007). *The Will to Improve: Governmentality, Development and the Practice of Politics*. Duke University Press: Durham
- Liarakou, G., Kostelou, E., & Gavrilakis, C. (2011). Environmental volunteers: Factors influencing their involvement in environmental action. *Environmental Education Research*, 17(5), 651-673.
- Lobel, O. (2004). The renew deal: The fall of regulation and the rise of governance in contemporary legal thought. *Minnesota Law Review*, 89, 342 – 471.
- Lockie, S., & Higgins, V. (2007). Roll-out neoliberalism and hybrid practices of regulation in Australian agri-governmental governance. *Journal of Rural Studies*, 23, 1 – 11.
- Lockwood, M., & Davidson, J. (2010). Environmental governance and the hybrid regime of Australian natural resource management. *Geoforum*, 41(3), 388 – 398.
- Lockwood, M., Davidson, J., Curtis, A., Stratford, E., & Griffith, R. (2009). Multi-level environmental governance: Lessons from Australian natural resource management. *Australian Geographer*, 40(2), 169 – 186.
- Lowenheim, O., 2007. The responsibility to responsibilize: Foreign offices and the issuing of travel warnings. *International Political Sociology*, 1(3), 203 – 221.
- Mansergh, G., Marks, G., Colfax, G. N., Guzman, R., Rader, M., & Buchbinder, S. (2002). ‘Barebacking’ in a diverse sample of men who have sex with men. *Aids*, 16(4), 653-659.
- Mansfield, B. (2004). Neoliberalism in the oceans: ‘rationalisation,’ property rights and the commons questions. *Geoforum*, 35, 313 – 326.
- Mansfield, B. (2005). Beyond rescaling: Reintegration of the national as a dimension of scalar relations. *Progress in Human Geography*, 29(4), 458 – 473.
- Mascini, A.P., Achterberg, P., & Houtman, D. (2013) Neoliberalism and work-related risks: Individual or collective responsibility. *Journal of Risk Research*, 16(10), 1209 – 1224.
- Mautner, G. (2008). Analysing newspapers, magazines and other print media. In R. Wodak & M. Kryzanowski (eds), *Qualitative Discourse Analysis in the Social Sciences*. Macmillan: Palgrave
- McAdam, D., McCarthy, J. D., & Zald, M. N. (eds.). (1996). *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures, and Cultural Framings*. Cambridge University Press: Cambridge.



- McCarthy, J. (2005). Devolution in the woods: Community forestry as hybrid neoliberalism. *Environment and Planning A*, 37, 995 – 1014.
- McCarthy, J., & Prudham, S. (2004) Neoliberal nature and the nature of neoliberalism. *Geoforum*, 35(3), 275 – 283.
- McLennan, B.J., & Handmer, J. (2012). Reframing responsibility-sharing for bushfire risk management in Australia after Black Saturday. *Environmental Hazards*, 11(1), 1-15.
- McPhee, D., Leadbitter, D., & Skilleter, G. (2002). Swallowing the bait: Is recreational fishing in Australia ecologically sustainable? *Pacific Conservation Biology*, 8(1), 40 – 51.
- Measham, T.G., & Barnett, G.B. (2008). Environmental volunteering: Motivations, modes and outcomes. *Australian Geographer*, 39(4), 537-552.
- Measham, T.G., Richards, C., Robinson, C.J., Larson, S., & Brake, L. (2011). Genuine community engagement in remote dryland regions: Natural resource management in Lake Eyre Basin. *Geographical Research*, 49(2), 171 – 182.
- Meynen, W., & Doornbos, M. (2004). Decentralising natural resource management: A recipe for sustainability and equity? *European Journal of Development Research*, 16(1), 235 – 254.
- Midgley, A. (2016). *Ecology of the Australian Bass in Tributaries of the Hawkesbury-Nepean River*. Ph.D. Thesis, Western Sydney University: Penrith.
- Miles, M., Baker, E., & Copeland, C. (2014). *Habitat talk in the recreational fishing media*. Retrieved from: [https://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0011/634736/Fish-habitat-in-the-recreational-fishing-media\\_FINAL\\_web.pdf](https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0011/634736/Fish-habitat-in-the-recreational-fishing-media_FINAL_web.pdf).
- Mitchell, R.K., Agle, B.R. & Wood, D.J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, 22(4), 853 – 86.
- Mucciaroni, G. (2011). Are debates about ‘morality policy’ really about morality? Framing opposition to gay and lesbian rights. *Policy Studies Journal*, 39(2), 187 – 216.
- Mukhtarov, F., & Gerlak, A.K. (2014). Epistemic forms of integrated water resources management: towards knowledge versatility. *Policy Sciences*, 47(2), 101 – 120.
- Native Vegetation Act 2003* (NSW). Retrieved from <http://www.legislation.nsw.gov.au/maintop/search/inforce>.
- New South Wales Parliament, Legislative Council, Select Committee on Recreational Fishing. (2010). *Recreational Fishing in New South Wales*. Retrieved from [http://23.101.218.132/prod/parliament/committee.nsf/0/ca6bab0c1fc14e7eca2577f5000239ad/\\$FILE/101210%20FINAL%20COMPILE.pdf](http://23.101.218.132/prod/parliament/committee.nsf/0/ca6bab0c1fc14e7eca2577f5000239ad/$FILE/101210%20FINAL%20COMPILE.pdf).
- New South Wales Government. (2011). *NSW Government Response to the Legislative Council Select Committee on Recreational Fishing Report*. Retrieved from [http://23.101.218.132/prod/parliament/committee.nsf/0/ca6bab0c1fc14e7eca2577f5000239ad/\\$FILE/111213%20Government%20response\\_Fishing%20inquiry.pdf](http://23.101.218.132/prod/parliament/committee.nsf/0/ca6bab0c1fc14e7eca2577f5000239ad/$FILE/111213%20Government%20response_Fishing%20inquiry.pdf).

- New South Wales Government, Department of Industry [NSW DPI] (2018). *NSW Industry Cluster*. Retrieved from: [https://www.industry.nsw.gov.au/\\_data/assets/pdf\\_file/0015/122415/NSW-Department-of-Industry-organisational-chart.pdf](https://www.industry.nsw.gov.au/_data/assets/pdf_file/0015/122415/NSW-Department-of-Industry-organisational-chart.pdf)
- NSW DPI. (2009). *Recreational fishers make fish happen*. Retrieved from [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0007/633859/Recreational-fishers-make-fish-happen.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0007/633859/Recreational-fishers-make-fish-happen.pdf)
- NSW DPI. (2013a). *Policy and guidelines for fish habitat conservation and management – update 2013*. Retrieved from <http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies-guidelines-and-manuals/fish-habitat-conservation>
- NSW DPI. (2013b). *NSW recreational fishing trusts investment plan*. Retrieved from: [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0005/599819/Trust-Investment-Plan-March-2013-.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0005/599819/Trust-Investment-Plan-March-2013-.pdf)
- NSW DPI. (2015a). *Strategic Plan 2015 – 2019*. Retrieved from [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0007/583333/nsw-dpi-strategic-plan-2015-19.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0007/583333/nsw-dpi-strategic-plan-2015-19.pdf)
- NSW DPI. (2015b). *Fisheries final report series no. 149: Survey of recreational fishing in New South Wales and the ACT, 2013/14*. Retrieved from: [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0011/598628/West-et-al-Survey-of-rec-fishing-in-NSW-ACT-2013-14-2016\\_03\\_02.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0011/598628/West-et-al-Survey-of-rec-fishing-in-NSW-ACT-2013-14-2016_03_02.pdf)
- NSW DPI. (2016a). *Fish habitat action! Making more fish... naturally*. Retrieved from: [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0005/656582/Fish-habitat-action-making-more-fish-naturally.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0005/656582/Fish-habitat-action-making-more-fish-naturally.pdf)
- NSW DPI. (2016b). *Fisheries, aquaculture and aquatic conservation key highlights and statistic 2014-15*. Retrieved from: [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0003/599421/Fisheries-statistics-report-2014-15.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0003/599421/Fisheries-statistics-report-2014-15.pdf)
- NSW DPI. (n.d.-a). *Fixing freshwater fish habitat*. Retrieved from: [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0005/633668/Fixing-Freshwater-Habitat-Brochure.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0005/633668/Fixing-Freshwater-Habitat-Brochure.pdf)
- NSW DPI. (n.d.-b). *Fishers for fish habitat*. Retrieved from <https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/fishers>
- NSW DPI. (n.d.-c). *Get hooked: It's fun to fish*. Retrieved from <https://www.dpi.nsw.gov.au/fishing/recreational/resources/fishing-workshops/get-hooked>
- NSW DPI. (n.d.-d). *Fishing information*. Retrieved from: <https://www.dpi.nsw.gov.au/fishing/recreational/resources/info>
- NSW DPI. (n.d.-e). *Habitat action grants*. Retrieved from: <https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/ahr-grants-program>

- NSW DPI. (n.d.-f). *Who we are*. Retrieved from: <https://www.dpi.nsw.gov.au/about-us/who-we-are>.
- NSW DPI. (n.d.-g). *Recreational fishing fee*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/recreational/recreational-fishing-fee>.
- NSW DPI. (n.d.-h). *Habitat management*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat>.
- NSW DPI. (n.d.-i). *Threats to fish habitat*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats>.
- NSW DPI. (n.d.-j). *Acid sulfate soils*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/acid-sulfate-soils>.
- NSW DPI. (n.d.-k). *Barriers to fish passage*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/barriers>.
- NSW DPI. (n.d.-l). *Climate change*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/climate-change>.
- NSW DPI. (n.d.-m). *Cold water pollution*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/cold-water-pollution>.
- NSW DPI. (n.d.-n). *Degradation of riparian vegetation*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/removal-and-degradation-of-riparian-vegetation>.
- NSW DPI. (n.d.-o). *Fish kills*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/fish-kills>.
- NSW DPI. (n.d.-p). *Impacts of urban and rural development*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/urban>.
- NSW DPI. (n.d.-q). *Pests & diseases*. Retrieved from: <https://www.dpi.nsw.gov.au/fishing/pests-diseases>.
- NSW DPI. (n.d.-r). *Removal of large woody debris*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/woody-debris>.
- NSW DPI. (n.d.-s). *Water flow*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/water-flow>.
- NSW DPI. (n.d.-t). *Block and chain moorings in sensitive habitats*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/threats/traditional-boat-moorings-in-sensitive-habitats>.
- NSW DPI. (n.d.-u). *Rehabilitating habitats*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating>.
- NSW DPI. (n.d.-v). *Why understanding Eastern King Prawn habitat is important*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/ekp>.
- NSW DPI. (n.d.-w). *Improving fish habitats*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/habitats>.

- NSW DPI. (n.d.-x). *Living and working on a riverbank*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/living-and-working-on-a-riverbank>.
- NSW DPI. (n.d.-y). *Fish friendly programs*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/fish-friendly-programs>.
- NSW DPI. (n.d.-z). *River flows for our fish*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/river-flows-for-our-fish>.
- NSW DPI. (n.d.-aa). *Floodgate management*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/floodgate>.
- NSW DPI. (n.d.-ab). *Road crossing remediation*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/road-crossings>.
- NSW DPI. (n.d.-ac). *Weir remediation*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/weir-removal>.
- NSW DPI. (n.d.-ad). *Fishways*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/fishways>.
- NSW DPI. (n.d.-ae). *Fish and flows*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/fish-and-flows>.
- NSW DPI (n.d.-af). *Recreational fishers understanding flows in the Murray-Darling Basin in NSW*  
 DPI, (n.d.-ae). *Fish and flows*. Retrieved from:  
<https://www.dpi.nsw.gov.au/fishing/habitat/rehabilitating/fish-and-flows>.
- NSW DPI Fisheries. (2014a: December 5). *Happy International Volunteers Day to our valuable Fishcare volunteers!* [Facebook status update]. Retrieved from  
<https://www.facebook.com/NSWDPIFisheries/photos/a.142248399305196.1073741828.142000969329939/309518365911531>.
- NSW DPI Fisheries. (2014b: 26 November). *Check out what 1700 people think about our coastline and estuaries...* [Facebook status update]. Retrieved from  
<https://www.facebook.com/NSWDPIFisheries> Post ID: 142000969329939.306292959567405.
- NSW DPI Fisheries. (2016a, July 3). We have launched a 'River Flows for our Fish' Survey to find out how much recreational fishers within the Murray Darling Basin know about the positive benefits river flows have on our native fish population. We invite fishers to take a few minutes to fill out the survey at <https://www.surveymonkey.com/r/F3YV5NL> to help us better engage with [Facebook status update]. Retrieved from: <https://www.facebook.com/NSWDPIFisheries> Post ID: 142000969329939.499891340207565.
- NSW DPI Fisheries. (2016b, June 18). *Are you a member of a fishing club? Do you know fishing clubs can apply for grants of up to \$2,000 to help run community fishing activities in their local area on the NSW Go Fishing Day - 16 October 2016?* [Facebook status update]. Retrieved from  
<https://www.facebook.com/NSWDPIFisheries/photos/a.142248399305196.1073741828.142000969329939/493531307510235/>.

- NSW DPI Fisheries. (2016c, June 8). *Check out this picture of the Severn River in north eastern NSW. Part of the Murray-Darling Basin, this picture shows typical vegetation in this part of the world.* [Facebook status update]. Retrieved from <https://www.facebook.com/NSWDPIFisheries/photos/a.142248399305196.1073741828.142000969329939/467481683448531/?type=3&theater>.
- NSW Labor. 2018. *Our History*. Retrieved from [http://www.nswlabor.org.au/our\\_history](http://www.nswlabor.org.au/our_history)
- Nutt, P. & Backoff, R. (1992). *Strategic Management of Public and Third Sector Organizations: A Handbook for Leaders*. JosseyBass: San Francisco.
- Orsini, M. (2002). The politics of naming, blaming and claiming: HIV, hepatitis C and the emergence of blood activism in Canada. *Canadian Journal of Political Science/Revue Canadienne de Science Politique*, 35(3), 475 – 498.
- Osborne, N., & Grant-Smith, D. (2017). Constructing the cycling citizen: a critical analysis of policy imagery in Brisbane, Australia. *Journal of Transport Geography*, 64, 44 – 53.
- Parliament of NSW. (n.d.a.). *The Hon. (Bob) Robert Douglas Martin (1945 - )*. Retrieved from <https://www.parliament.nsw.gov.au/members/Pages/member-details.aspx?pk=2020>
- Parliament of NSW. (n.d.b). *Mr (Eddie) Edward Moses Obeid (1943 - )*. Retrieved from <https://www.parliament.nsw.gov.au/members/Pages/member-details.aspx?pk=2215>
- Peters, B.G. (1996) *The Future of Governing: Four Emerging Models*. University Press of Kansas: Lawrence.
- Pierre, J., & Peters, B.G. (2000). *Governance, Politics and the State*. Palgrave Macmillan: London.
- Philips, L., & Jorgensen, M.W. (2002). *Discourse Analysis as Theory and Method*. Sage: London.
- Philips, N., & Hardy, C. (2002). *Discourse Analysis: Investigating Processes of Social Construction*. Sage: London.
- Pratchett, M.S., Bay, L.K., Gehrke, P.C., Koehn, J.D., Osborne, K., Pressey, R.L., Sweatman, H.P. A., & Wachenfeld, D. (2011). Contribution of climate change to degradation and loss of critical fish habitats in Australian marine and freshwater environments. *Marine and Freshwater Research*, 62, 1062–1081.
- Preston, B. (2012). *Adapting to the impacts of climate change: The limits and opportunities of law*. Retrieved from [http://www.lec.justice.nsw.gov.au/Documents/preston\\_%20adapting%20to%20climate%20change%20and%20law%2030april%202012.pdf](http://www.lec.justice.nsw.gov.au/Documents/preston_%20adapting%20to%20climate%20change%20and%20law%2030april%202012.pdf)
- Pyysiäinen, J., & Vesala, K.M. (2013). Activating farmers: Uses of entrepreneurship discourse in the rhetoric of policy implementers. *Discourse and Communication*, 7(1), 55 – 73.
- Recreational Fishing Advisory Committee (2011). *Australian Recreational Fishing Industry Development Strategy*. Commonwealth of Australia: Canberra.
- Reed, M.S. (2008). Stakeholder participation for environmental management: A literature review. *Biological Conservation*, 141(10), 2417-2431.

- Reed, M.S., Graves, A., Dandy, N., Posthumus, H., Hubacek, K., Morris, J., Prell, C., Quinn, C.H., & Stringer, L.C. (2009). Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management*, 90(5), 1933 – 1949.
- Reinecke, J., & Ansari, S. (2016). Taming wicked problems: The role of framing in the construction of corporate social responsibility. *Journal of Management Studies*, 53(3), 299 – 329.
- Rhodes, R.A.W. (1996). The new governance: Governing without government. *Political Studies*, XLIV, 652 – 667.
- Röckmann, C., Kraan, M., Goldsborough, D., & van Hoof, L. (2017). Stakeholder participation in marine management: The importance of transparency and rules for participation. *Conservation for the Anthropocene Ocean*, 289 – 306.
- Rogers, K., Knoll, E.J., Copeland, C., & Walsh, S. (2016). Quantifying changes to historic fish habitat extent on north coast NSW floodplains, Australia. *Regional Environmental Change*, 16(5), 1469 – 1479.
- Ross, H., Buchy, M., & Proctor, W. (2002). Laying down the ladder: A typology of public participation in Australian natural resource management. *Australian Journal of Environmental Management*, 9(4), 205 – 217.
- Rowe, G., & Frewer, L. J. (2005). A typology of public engagement mechanisms. *Science, Technology, and Human Values*, 30(2), 251 – 290.
- Ruddin, L.P. (2006). You can generalize stupid! Social scientists, Bent Flyvbjerg, and case study methodology. *Qualitative Inquiry*, 12(4), 797 – 812.
- Russell, B. (1938). *Power*. Unwin: London.
- Ryan, R.L., Kaplan, R., & Grese, R.E. (2001). Predicting volunteer commitment in environmental stewardship programmes. *Journal of Environmental Planning and Management*, 44(5), 629–48.
- Santos, B. (2006). The heterogeneous state and legal pluralism in Mozambique. *Law and Society Review*, 40(1), 39 – 75.
- Sarantakos, S. (1998). *Social Research*. 2<sup>nd</sup> edition. Macmillan: South Yarra.
- Sawchuck, J.H., Beaudreau, A.H., Tonnes, D., & Fluharty, D. (2015). Using stakeholder engagement to inform endangered species management and improve conservation. *Marine Policy*, 54, 98 – 107.
- Schwartz-Shea, P. (2006). Judging quality: Evaluative criteria and epistemic communities. In D. Yanow and P. Schwartz-Shea (eds) *Interpretation and Method: Empirical Research Methods and the Interpretive Turn*. Armonok: New York.
- Schwartz-Shea, P. & Yanow, D. (2011). *Interpretive Research Design: Concepts and Process*. Routledge: New York
- Serrao-Neumann, S., Harman, B., Leitch, A., & Low Choy, D. (2015) Public engagement and climate adaption: Insights from three local governments in Australia. *Journal of Environmental Planning and Management*, 58(7), 1196 – 1216.

- Shamir, R. (2008). The age of responsabilisation: on market bedded morality. *Economy and Society*, 37(1), 1 – 19.
- Sharp, L., & Richardson, T. (2001). Reflections on Foucauldian discourse analysis in planning and environmental policy research. *Journal of Environmental Policy and Planning*, 3(3), 193 – 209.
- Silmalis, L. (2014). *Eddie Obeid and Joe Tripodi stripped of 'honourable' titles after ICAC findings*. Retrieved from <https://www.dailytelegraph.com.au/news/nsw/eddie-obeid-and-joe-tripodi-stripped-of-honourable-titles-after-icac-findings/news-story/3ed170cdd477ef4fcc2505aeb7e61a33>
- Silverman, D. (ed). (2011). *Qualitative Research: Issues of Theory, Method and Practice*. 3<sup>rd</sup> edition. Sage: London.
- Singleton, S. (2000). Co-operation or capture? The paradox of comanagement and community participation in natural resource management and environmental policymaking. *Environmental Politics*, 9(2): 1 – 21.
- Sirkku Juhola, E., Keskitalo, C., & Westerhoff, L. (2011). Understanding the framings of climate change adaptation across multiple scales of governance in Europe. *Environmental Politics*, 20(4), 445 – 463.
- Soneryd, L., & Uggla, Y. (2015). Green governmentality and responsabilization: new forms of governance and responses to 'consumer responsibility'. *Environmental Politics*, 24(6), 913 – 931.
- Stake, R.E. (1995). *The Art of Case study Research*. Sage: Thousand Oaks.
- Stedman, R.C. (2002). Toward a social psychology of place: Predicting behaviour from place-based cognitions, attitude, and identity. *Environment and Behaviour*, 34, 561–581.
- Stone, D. (2002), *Policy Paradox and Political Reason: The Art of Political Decision Making*. WW Norton and Company: New York. .
- Sullivan, S. (2006). The elephant in the room? Problematising 'new' (neoliberal) biodiversity conservation. *Forum for Development Studies*, 33(1), 105 – 135.
- Summerville, J.A., & Adkins, B.A. (2008). Community participation, rights and responsibilities: The governmentality of sustainable development policies. *Environment and Planning A*, 26(4), 696 – 711.
- Symes, D., & Phillipson, J. (2009). Whatever became of social objectives in fisheries policy. *Fisheries Research*, 95(1), 1 – 5.
- Thörn, H., & Svenberg, S. (2016). 'We feel the responsibility that you shirk': Movement institutionalization, the politics of responsibility and the case of the Swedish environmental movement. *Social Movement Studies*, 15(6), 593 – 609.
- Threatened Species Conservation Act 1995* (NSW). Retrieved from <http://www.legislation.nsw.gov.au/maintop/search/inforce>.



- Torgerson, D. (2003). Democracy through policy discourse. In Hajer, M., & Wagenaar, H. (eds) *Deliberative Policy Analysis: Understanding Governance in the Network Society*. Cambridge University Press: Cambridge.
- Torgerson, D., Fischer, F., Durnová, A., & Orsini, M. (Eds.). (2015). *Handbook of Critical Policy Studies*. Edward Elgar Publishing: London.
- Travaline, K., Montalto, F., & Hunold, C. (2015). Deliberative policy analysis and policymaking in urban stormwater management. *Journal of Environmental Policy & Planning*, 17(5), 691 – 708.
- Van Hulst, M., & Yanow, D. (2016). From policy ‘frames’ to ‘framing’ theorizing a more dynamic, political approach. *The American Review of Public Administration*, 46(1), 92 – 112.
- Van Lieshout, M., Dewulf, A., Aarts, N., & Termeer, C. (2017). The power to frame the scale? Analysing scalar politics over, in and of a deliberative governance process. *Journal of Environmental Policy & Planning*, 19(5), 550 – 573.
- Voyer, M., Gladstone, W., & Goodall, H. (2012). Methods of social assessment in Marine Protected Area planning: Is public participation enough. *Marine Policy*, 36(2), 432 – 439.
- Voyer, M., Dreher, T., Gladstone, W., & Goodall, H. (2013). Dodgy science or global necessity? Local media reporting of marine parks. *Environmental Conflict and the Media*, 153 - 168
- Voyer, M., Gladstone, W., & Goodall, H. (2014). Understanding marine park opposition: The relationship between social impacts, environmental knowledge and motivation to fish. *Aquatic Conservation*, 24(4), 441 – 462.
- Wallis, P.J., Bosomworth, K., Harwood, A., & Leith, P. (2017). Charting the emergence of a ‘knowing system’ for climate change adaptation in Australian regional natural resource management. *Geoforum*, 84, 42 – 50.
- Wagenaar, H. (2014). *Meaning in Action: Interpretation and Dialogue in Policy Analysis*. Routledge: New York.
- Ward, I., & Stewart, R. (2010). *Politics One*. 4<sup>th</sup> edition. Palgrave Macmillan: South Yarra.
- Wartenberg, T.E. (1990). *The Forms of Power: From Dominoes to Transformation*. Temple University Press: Philadelphia.
- Weber, L., & Pickering, S. (2014). Constructing voluntarism: Technologies of ‘intent management’ in Australian border controls. In *New Border and Citizenship Politics*. Palgrave Macmillan: London
- Weinberg, D. (2014). *Contemporary Social Constructionism: Key Themes*. Temple University Press: Philadelphia.
- Wesselink, A., Buchanan, K. S., Georgiadou, Y., & Turnhout, E. (2013). Technical knowledge, discursive spaces and politics at the science–policy interface. *Environmental Science and Policy*, 30, 1 – 9.
- Wheeler, S.M. (2002). The new regionalism: Key characteristics of an emerging movement. *Journal of the American Planning Association*, 68(3), 267 – 278.



- Wilson, G.A. (2004). The Australian Landcare movement: Towards 'post-productivist' rural governance. *Journal of Rural Studies*, 20(4), 461 – 484.
- Yanow, D. (2000). *Conducting Interpretive Policy Analysis*. Sage, Thousand Oaks.
- Yanow, D. (2006). Thinking interpretively: Philosophical presuppositions and the human sciences. In D. Yanow & P. Schwartz-Shea (eds) *Interpretation and Method: Empirical Research Methods and the Interpretive Turn*. Armonk: New York.
- Yanow, D. (2007). Interpretation in policy analysis: On methods and practice. *Critical Policy Analysis*, 1(1), 110 – 122.
- Yin, R. (2004). *The Case Study Anthology*. Sage: Thousand Oaks.
- Young, M., Foale, S., & Bellwood, D. (2016). Why do fishers fish? A cross-cultural examination of the motivations for fishing. *Marine Policy*, 66, 114 – 123.

# Appendix One: Texts selected for analysis

Author	Date	Type	Title	Intended audience
NSW DPI	2009	Brochure	<i>Recreational fishers make fish happen!</i>	Recreational fishers
Baker, E	2010	Research/ policy	<i>More habitat more fish: A strategy for educating recreational fishers about habitat</i>	Policymakers
NSW DPI	06/2013	Policy	<i>Policy and guidelines for fish habitat conservation and management</i>	Developers NGOs Other government actors
NSW DPI Fisheries	11/2014	Social media	<i>We have launched a 'River Flows for our Fish' Survey to find out how much recreational fishers</i>	Recreational fishers
NSW DPI Fisheries	12/2014	Social media	<i>Check out what 1700 people think about our coastline and estuaries...</i>	Recreational fishers
NSW DPI	12/2015	Research	<i>Survey of recreational fishing in NSW and the ACT 2013/2014</i>	Policymakers Recreational fishers
NSW DPI	2016	Corporate publication	<i>Fisheries, aquaculture and aquatic conservation highlights</i>	Recreational fishers Community Other government actors
NSW DPI	2016	Brochure	<i>Fish Habitat Action ... Making more fish... naturally</i>	Recreational fishers
NSW DPI Fisheries	06/16	Social media	<i>Are you a member of a fishing club? Do you know fishing clubs can apply for grants...</i>	Recreational fishers
NSW DPI Fisheries	06/16	Social media	<i>Check out this picture of the Severn River in north eastern NSW...</i>	Recreational fishers
NSW DPI Fisheries	07/2016	Social media	<i>We have launched a 'River Flows for our Fish' Survey to find out how much recreational fishers within the Murray Darling Basin</i>	Recreational fishers
NSW DPI	Unknown	Brochure	<i>Fixing freshwater habitat</i>	Recreational fishers
NSW DPI	Unknown	Corporate Website	<i>Habitat management</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Fishers for fish habitat</i>	Recreational fishers
NSW DPI	Unknown	Corporate website	<i>Get hooked – It's fun to fish!</i>	Primary school children Teachers Recreational fishers
NSW DPI	Unknown	Corporate website	<i>Fishing information</i>	Recreational fishers
NSW DPI	Unknown	Corporate website	<i>Threats to fish habitat</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Acid sulfate soils</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Barriers to fish passage</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Climate change</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Cold water pollution</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Degradation of riparian vegetation</i>	Recreational fishers Other government actors Developers NGOs Community at large

Author	Date	Type	Title	Intended audience
NSW DPI	Unknown	Corporate website	<i>Fish kills</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Impacts of urban and rural development</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Pests &amp; diseases</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Removal of large woody debris</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Water flow</i>	Recreational fishers Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Block and chain moorings in sensitive habitats</i>	Recreational fishers Boaters Other government actors Developers NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Rehabilitating habitats</i>	Recreational fishers Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Improving fish habitats</i>	Recreational fishers Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Habitat Action Grants</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Living and working on the riverbank</i>	Actors who live and work along the riverbank Users of these waters Recreational fishers
NSW DPI	Unknown	Corporate website	<i>Fish friendly programs</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>River flows for our fish</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Road crossing remediation</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Weir remediation</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Fishways</i>	Recreational fishers Fishing clubs Other government actors

Author	Date	Type	Title	Intended audience
				NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Why understanding Eastern King Prawn habitat is important</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Corporate website	<i>Fish and flows</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large
NSW DPI	Unknown	Video embedded on corporate website	<i>Recreational fishers understanding flows in the Murray-Darling Basin</i>	Recreational fishers Fishing clubs Other government actors NGOs Community at large

# Appendix Two: Ethics Waiver



University Human Research Ethics Committee (UHREC)  
**HUMAN RESEARCH ETHICS APPROVAL CERTIFICATE**  
NHMRC Registered Committee Number EC00171

Date of Issue: 28/5/18 (supersedes all previously issued certificates)

Dear Dr Carol Richards

This approval certificate serves as your written notice that the proposal has met the requirements of the *National Statement on Ethical Conduct in Human Research* and has been approved on that basis. You are therefore authorised to commence activities as outlined in your application, subject to any specific and standard conditions detailed in this document.

#### Project Details

**Category of Approval:** Exempt  
**Approved From:** 8/02/2017      **Approved Until:** 8/02/2022 (subject to annual reports)  
**Approval Number:** 1700000096  
**Project Title:** So Long and Thanks for All the Fish - How the New South Wales Department of Primary Industries frames problems and solutions when mobilising recreational fishers to participate in habitat stewardship activities

#### Investigator Details

**Chief Investigator:** Dr Carol Richards  
**Other Staff/Students:**

Investigator Name	Type	Role
Mr Kieran Gregory	Student	Student

#### Conditions of Approval

**Specific Conditions of Approval:**

No special conditions placed on approval by the UHREC. Standard conditions apply.

**Standard Conditions of Approval:**

1. Conduct the project in accordance with the principles of the NHMRC National Statement on Ethical Conduct in Human Research 2007, the Australian Code for the Responsible Conduct of Research, any additional specific conditions defined by the UHREC, any associated NHMRC guidelines and regulations, and the provisions of any legislation which is relevant to the project;
2. Obtain UHREC approval for any proposed variation to the project prior to implementation (note that major changes may require a different level of review and/or submission of a new application);
3. Obtain any additional approvals or authorisations as required (e.g. from other ethics committees, collaborating institutions, supporting organisations);
4. Maintain research records and data in accordance with MoPP D/2.8 Management of research data.
5. Respond promptly to the requests and instructions of UHREC;
6. Declare all actual, perceived or potential conflicts of interest (NS 5.4);
7. Immediately advise the Office of Research Ethics and Integrity (OREI) of any concerns, complaints or adverse events including (NS 5.5.3):
  - o if any unforeseen development or events occur that might affect the continued ethical acceptability of the project;
  - o if any complaints are made, or expressions of concern are raised, in relation to the project;
  - o if the project needs to be suspended or modified because the risks to participants now outweigh the benefits;
  - o if a participant can no longer be involved because the research may harm them.
8. Report on the progress of the project at least annually, or at intervals determined by UHREC (NS 5.5.5);
9. Participate in project monitoring activities in accordance with MoPP D/2.4 Monitoring of research approved by a University

*If any details within this Approval Certificate are incorrect please advise the Research Ethics Advisory Team immediately.*

End of Document