REGULATING THE UNSPEAKABLE

A policy story of boaters, floaters, voters and matter out of place

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Shying away from controversial topics, simply because they are controversial is also an avoidance of responsibility.

Joan Sieber & Barbara Stanley
Ethical and Professional Dimensions of Socially Sensitive Research, 1988:55
Abstract

The difficulties involved with addressing wicked problems have been acknowledged since the early 1970s. Collaboration, deliberation and communicative rationality have been posited as a way forward on these. Some wicked problems, however, present the additional challenge of high levels of psychosocial sensitivity and verbal proscription. The unspeakable nature of these problems makes them particularly problematic within rational deliberation processes because they are quite literally issues that we can’t or won’t talk about.

Through this research I seek to understand how these unspeakable policy problems are dealt with by and can affect policy making processes, participation and outcomes. As a paradigmatic unspeakable policy problem, this research focuses on a case study of the regulation of sewage discharges from recreational boats. Through this case study I explore how governments go about the business of addressing unspeakable policy problems and what happens when they do. Using critical discourse analysis and an interpretive approach to policy analysis, I highlight the discursive strategies used in these policy making debates and consultations, as well as the policy implications of the way the unspeakable object and subject are constructed. These discursive strategies seek to influence the creation and definition of policy problems, to control the range of policy contributions that are considered to be legitimate, and to restrict the range of issues and possible solutions. I argue that each of these acts gains an increased importance due to the unspeakability of the policy problem.

Does it matter whether we find excrement abhorrent because we find it disgusting or because it is harmful? Such a distinction provides clues as to why people respond the way they do to certain policies, the potential for behaviour change and the means by which it is most likely to be achieved. Placing the object of policy, excrement, and its socio-cultural constructions at the forefront of our enquiry enables us to recognise the implications of its unspeakable presence and, this, the need for a more contextually and culturally situated policy approach. Recognising sewage regulation as an unspeakable problem allows for the design of processes which both acknowledge and accommodate its unspeakability.

This thesis demonstrates the value of focussing on the discourses of policy in developing an understanding of the constraints and opportunities for policy making for unspeakable issues. I advocate the need for policy process to accommodate a range of ways of speaking about the unspeakable that accommodates emotional and embodied talk, and not just abstract or technical contributions.
## Table of contents

Abstract ................................................................................................................................. i

Statement of originality ........................................................................................................... ii

Table of contents .................................................................................................................. iii
  List of figures ....................................................................................................................... vii
  List of tables ......................................................................................................................... viii
  List of images ....................................................................................................................... viii
  List of maps .......................................................................................................................... ix

Acknowledgements ............................................................................................................... x

List of published works ........................................................................................................... xii

Glossary of terms .................................................................................................................. xiv

EXPLORING THE UNSPEAKABLE POLICY PROBLEM ......................................................... i

Preface: An unspeakable absence .......................................................................................... 2

CHAPTER ONE ..................................................................................................................... 6

Introducing the unspeakable ............................................................................................... 6
  Introduction ......................................................................................................................... 6
  Making public policy .......................................................................................................... 7
  Talking public policy ......................................................................................................... 10
  Reconsidering a generic approach to complex policy problems ...................................... 14
  Accounting for the unspeakable in policy making ......................................................... 16
  Addressing the research agenda ...................................................................................... 18
  Part 1: Exploring the unspeakable policy problem ....................................................... 18
  Part 2: Understanding excrement as an unspeakable policy problem ......................... 20
  Part 3: Re-imagining the unspeakable policy problem .................................................. 23
  Conclusion .......................................................................................................................... 24

CHAPTER TWO .................................................................................................................. 26

Case study approach and method for interrogating the unspeakable policy problem .... 26
  Introduction ......................................................................................................................... 26
  Employing a case study approach to explore the unspeakable ....................................... 26
  Selecting the case study site .............................................................................................. 27
  Understanding the case study ........................................................................................... 28
  Constructing the case study and context through interviews and archival data ............ 31
  Recruiting participants ...................................................................................................... 31
  Conducting the interviews ................................................................................................. 33
  Locating the observer: a comment on insider status ....................................................... 35
  Translating insider status to interview method ............................................................... 38
  Documenting the interviews for analysis ........................................................................ 39
  Data collection: using key texts to understand the case study ........................................ 40
  The official line: identifying and accessing Government texts ...................................... 41
  Participating inside the processes: identifying and accessing solicited submissions ... 42
  Participating outside the process: identifying and accessing unsolicited comment ... 42
  Thesis style conventions ................................................................................................. 43
  Taking a critical realist approach to understanding sewage regulation ...................... 44
  An interpretive approach to policy analysis ................................................................. 46
  A discursive approach to policy analysis ....................................................................... 48
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion</td>
<td>52</td>
</tr>
<tr>
<td><strong>CHAPTER THREE</strong></td>
<td>54</td>
</tr>
<tr>
<td>Sewage regulation as a wicked problem or beyond?</td>
<td>54</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>54</td>
</tr>
<tr>
<td>2. Wicked policy problems</td>
<td>55</td>
</tr>
<tr>
<td>3. A socio-historical overview of sewage regulation as a wicked problem</td>
<td>57</td>
</tr>
<tr>
<td>3.1 Sanitation in early civilisations</td>
<td>58</td>
</tr>
<tr>
<td>3.2 Sanitation in Roman times</td>
<td>59</td>
</tr>
<tr>
<td>3.3 The sanitary dark ages</td>
<td>60</td>
</tr>
<tr>
<td>3.4 The age of sanitary enlightenment</td>
<td>64</td>
</tr>
<tr>
<td>3.5 A new era of science and environmental sanitation</td>
<td>72</td>
</tr>
<tr>
<td>3.6 An emerging era of ethical sanitation</td>
<td>76</td>
</tr>
<tr>
<td>4. Understanding the forces shaping sewage regulation</td>
<td>77</td>
</tr>
<tr>
<td>5. Understanding sewage regulation as a wicked problem</td>
<td>80</td>
</tr>
<tr>
<td>5.1 More than merely wicked?</td>
<td>84</td>
</tr>
<tr>
<td>5.2 Conclusion</td>
<td>86</td>
</tr>
<tr>
<td><strong>CHAPTER FOUR</strong></td>
<td>88</td>
</tr>
<tr>
<td>Sewage regulation as an unspeakable problem</td>
<td>88</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>88</td>
</tr>
<tr>
<td>2. Unspeakably wicked?</td>
<td>88</td>
</tr>
<tr>
<td>3. Pollution: at the intersection of emotions and the law</td>
<td>91</td>
</tr>
<tr>
<td>4. Setting up excrement as unspeakable problem</td>
<td>92</td>
</tr>
<tr>
<td>4.1 Matter out of place</td>
<td>93</td>
</tr>
<tr>
<td>4.2 An unspeakable framework for the understanding the excremental</td>
<td>97</td>
</tr>
<tr>
<td>4.3 Thinking the unthinkable: unpacking the symbolic element</td>
<td>98</td>
</tr>
<tr>
<td>4.4 Acting on abjection: unpacking the practical element</td>
<td>102</td>
</tr>
<tr>
<td>4.5 Abject infrastructure: unpacking the material element</td>
<td>104</td>
</tr>
<tr>
<td>4.6 Geographies of resistance to sanitation</td>
<td>106</td>
</tr>
<tr>
<td>4.7 Considering the case of the Bondi cigar</td>
<td>108</td>
</tr>
<tr>
<td>4.8 Considering POOwoomba and the sewage beverage debate</td>
<td>112</td>
</tr>
<tr>
<td>4.9 Considering the regulation of sewage discharges from recreational boats</td>
<td>117</td>
</tr>
<tr>
<td>4.10 Conclusion</td>
<td>122</td>
</tr>
<tr>
<td><strong>UNDERSTANDING EXCREMMENT AS AN UNSPEAKABLE POLICY PROBLEM</strong></td>
<td>124</td>
</tr>
<tr>
<td><strong>CHAPTER FIVE</strong></td>
<td>125</td>
</tr>
<tr>
<td>A story of boaters, floaters and voters</td>
<td>125</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>125</td>
</tr>
<tr>
<td>2. Perceptions of marine pollution</td>
<td>126</td>
</tr>
<tr>
<td>3. Approaches to managing ship-sourced sewage</td>
<td>127</td>
</tr>
<tr>
<td>4. Regulatory approaches to managing ship-sourced sewage discharges</td>
<td>129</td>
</tr>
<tr>
<td>4.1 Exhortation approaches to managing sewage discharges from vessels</td>
<td>131</td>
</tr>
<tr>
<td>4.2 Regulatory approaches to managing sewage discharges from vessels</td>
<td>132</td>
</tr>
<tr>
<td>5. Regulating recreational vessel sewage discharges: a Queensland study</td>
<td>135</td>
</tr>
<tr>
<td>6. The Queensland ship-sourced sewage policy regime</td>
<td>136</td>
</tr>
<tr>
<td>7. Passage of the Marine Pollution Bill and promotion of TOMPA</td>
<td>137</td>
</tr>
<tr>
<td>7.1 The Marine Pollution Bill</td>
<td>138</td>
</tr>
<tr>
<td>8. An unexpected focus on sewage: the passage of the Marine Pollution Bill</td>
<td>141</td>
</tr>
<tr>
<td>9. Passing the Marine Pollution Bill and proclaiming TOMPA</td>
<td>143</td>
</tr>
<tr>
<td>10. Reviewing TOMPA's sewage provisions</td>
<td>145</td>
</tr>
<tr>
<td>10.1 All Hands on Deck for a Cleaner Coast: initial review process, 1997-1998</td>
<td>147</td>
</tr>
</tbody>
</table>
A position paper for public comment: the State’s revised position outlined

The second flush: further consultation and a scientific approach

A position based on studies: the 2000 Position Paper

Turning proposals into law: remaking TOMPA’s sewage provisions

Preparing the groundwork for change: TLAB 1999

Holding ground while waiting for the new marine sewage laws: TLAB 2001

An overhaul of TOMPA’s sewage provisions: TLAB 2002

The devil is in the detail: 2003 Regulatory Impact Statement

Regulatory amendments to support changes to TOMPA’s sewage provisions

A phased approach to implementing TOMPA’s remade sewage provisions

Recreational boaters can’t be trusted: TLAB 2008

More regulatory changes

Making the laws work

Charting the changes

Conclusion

CHAPTER SIX

A focus on the boaters and their claims

Introduction

Understanding the typical recreational boater

Ungovernable space: the recreational boat as heterotopia

Recreational boaters’ claims making strategies in the policy process

Sewage from recreational boats does not have any significant impact

Regulation is unnecessary because there is no problem

The need to regulate the actions of others

Decisions should be based on science not politics

Recreational boaters are already over regulated

Regulating recreational boaters is biased and unfair

Recreational boaters are environmentally responsible

Recreational will not and cannot change their sewage disposal practices

Recreational boaters won’t comply with laws they don’t agree with

The (un)availability of cost effective, practical alternatives

Upsetting the boating ideals of freedom, resistance and control

The excremental invasion of territory and the male boating body

Conclusion

CHAPTER SEVEN

A focus on the floaters and the unspeakable

Introduction

Seeking out silences and looking below the surface

Focussing on environmental claims as an example

Pollution: vessel sourced sewage as matter out of place

The polluter as pollution and the problem of representing the boater as floater

Deflecting the scatological gaze

An unintended focus on the unaccustomed Other

Gendering blame and implicating leaky bodies

Scatological status symbols and why men don’t do the dirty work

The parallel problem of women and waste on boats

Conclusion

REIMAGINING THE UNSPEAKABLE POLICY PROBLEM

CHAPTER EIGHT
List of figures

Figure 1.1: Characteristics of a wicked problem
Figure 1.2: Wicked problems as a function of complexity, uncertainty and value divergence
Figure 1.3: Thesis structure
Figure 2.1: Schema of data collection and analysis
Figure 2.2: Constructing the case study and context
Figure 2.3: A figure to inform the interviews
Figure 2.4: Relationship between policy artefacts and meaning(s)
Figure 2.5: Steps in interpretive policy analysis
Figure 2.6: Elements of Fairclough’s critical discourse analysis framework
Figure 3.1: Characterising wicked problems
Figure 3.2: Understanding the elements of wicked problems
Figure 3.3: Main ages in the evolution of sanitary regulation and corresponding periods of sanitation
Figure 3.4: Pre-sewer excremental flows
Figure 3.5: Understanding the forces shaping sewage regulation as a wicked problem
Figure 4.1: The unspeakable policy problem
Figure 4.2: Continuum of faecal disgust
Figure 4.3: Understanding the forces shaping sewage regulation as an unspeakable problem
Figure 5.1: Policy instruments commonly applied to ship-sourced sewage disposal
Figure 5.2: Main types of operational and infrastructure-based sewage regulation
Figure 5.3: Chronology of the development, review and implementation of TOMPA (1994-2010)
Figure 5.4: Mentions by pollutant category in Hansard records, Marine Pollution Bill debate 1994
Figure 5.5: Key elements of the consultative and policy making process (1997-1998)
Figure 5.6: Key elements of the marine sewage review consultation and policy making process (1999-2001)
Figure 5.7: Key elements of the marine sewage legislative amendment process
Figure 6.1: Recreational boaters’ claims making web
Figure 6.2: Constructing the claim that sewage from recreational boat does not have any impact on the environment
Figure 6.3: Constructing the cause of marine sewage pollution
Figure 6.4: Constructing the claim that recreational boaters are already over regulated
Figure 6.5: Constructing the claim that recreational boaters will not and cannot change their sewage disposal practices
Figure 7.1: Policy contributions above and below the waterline
Figure 7.2: Conceptual framework for sewage discharge attitudes and behaviours
Figure 7.3: Interrogating the pollution claims of boaters and non-boaters
Figure 8.1: Identifying excremental discourses in the case study
Figure A2.1: Comparison of pro-regulation and anti-regulation newsprint articles
Figure A3.1: Constructing sewage discharges as a problem
Figure A4.1: Typical marine toilet installation configurations
Figure A5.1: Key legislation for the control of ship-sourced sewage discharges, Queensland 1995-2008
Figure A5.2: Australian maritime zones
Figure A5.3: Relationship between maritime features, limits and zones
Figure A5.4: MARPOL annex structure and entry into force dates
Figure A5.5: Sewage discharge regime under MARPOL’s sewage annex
Figure A6.1: The Queensland Legislative process
Figure A8.1: TOMPA’s marine sewage legislative provisions as passed by Parliament, 1995
Figure A8.2: Proposed position on changes to TOMPA’s sewage provisions, 1998
Figure A8.3: Proposed position on changes to TOMPA’s sewage provisions, 2000
Figure A8.4: TOMPA’s marine sewage legislative provisions for recreational vessels, 2003
Figure A8.5: TOMPA’s marine sewage legislative provisions for recreational vessels, 2011
List of tables

Table 1.1: Characteristics of a wicked problem present
Table 3.1: Cataloguing problems, motives and solutions by sanitation period
Table 4.1: Elements of the mode of excretion
Table 4.2: Comparing elements of the Bondi sewage outfall debate
Table 4.3: Comparing elements of excrement and the recycled water debate
Table 4.4: Comparing elements of excrement and the NSW vessel-sourced sewage debate
Table 5.1: Mentions of specific vessel-sourced pollutant categories in debate on Marine Pollution Bill, 1994
Table 6.1: Recreational boater responses to regulatory processes
Table 7.1: Comparison of sanitation systems
Table A3.1: Examples of common waterborne pathogens found in faecally contaminated recreational waters and their potential health impacts
Table A4.1: Comparison of standards for treated sewage from vessels under various regulations
Table A5.1: Comparison of sewage discharge regulations for recreational vessels applicable in Queensland
Table A7.1: Key stakeholder group membership

List of images

Image 5.1: Think about it!!!! brochure, 1995
Image 5.2: All Hands on Deck for a Cleaner Coast brochure, 1997
Image 5.3: All Hands on Deck for a Cleaner Coast postcard survey, 1997
Image 5.4: Sample pages from Position Paper for Public Comment, 1998
Image 5.5: Sample pages from Position Paper for Community Consultation, 2000
Image 5.6: What kind of waterways do we want? poster, 2003
Image 7.1: Typical marine toilet with macerator
Image 7.2: Representing the boater as floater
Image 7.3: The poo police are watching your passage
Image 7.4: The typical recreational boater
Image 7.5: Brochures for sewage pump-out and portable toilet dumping facilities
Image 8.1: Cleaner marina brochure, 2007
Image 8.2: Marine Pollution: what kind of waterways do we want? brochure 2011
Image 8.3: International symbol for vessel sewage pumpout facilities
Image 8.4: Stinky says
Image 8.5: Images of the One Hundred Toilet exhibition, World Toilet Day 2008
Image 8.6: Insanitation sticker distributed at the One Hundred Toilet exhibition, World Toilet Day 2008
Image A4.1: Typical modern marine toilets
Image A4.2: Examples of sewage holding tanks
Image A4.3: Fixed sewage pump-out station, Bribie Island, Queensland
Image A4.4: Self propelled mobile sewage pump-out unit, Mooloolaba, Queensland
Image A4.5: Sewage pump-out tanker, Brisbane, Queensland
Image A4.6: Royal Flush sewage pump-out vessel, Queensland
Image A4.7: Macerating unit installed on a marine toilet
Image A4.8: Controls for onboard sewage treatment system operation
Image A4.9: Aqua Mare onboard sewage treatment system, below deck components
Image A4.10: Aquasan onboard sewage treatment system, below deck components
Image A4.11: Typical portable chemical toilet unit
Image A4.12: Portable toilet dumping station, Pumicestone Passage, Queensland
Image A4.13: Portable toilet dumping station, Mooloolaba, Queensland
Image A4.14: Portable toilet dumping station, Manly, Queensland
Image A5.1: Key legislation for the control of vessel-sourced sewage discharges, Queensland
Image A5.2: Australian maritime zones
Image A5.3: Relationship between maritime features, limits and zones
List of maps

Map A5.1: Australia’s maritime zones
Map A5.2: Queensland coastal waters
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List of published works

The following works were published during the candidature period of this thesis. Significant parts of this thesis were included, either in whole or part, in those publications indicated with a ★. The remaining publications are additional works published relevant to the thesis but not forming part of it.

CAMERON, JENNY & DEANNA GRANT-SMITH

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EDWARDS, PETER & DEANNA GRANT-SMITH


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Glossary of terms

**Hansard**
Record of Parliamentary Proceedings. Used to refer to Queensland Hansard records unless otherwise indicated.

**holding tank**
An enclosed receptacle used as part of a sewage disposal system onboard a vessel. Holding tanks are designed and constructed to receive and temporarily store sewage onboard a vessel for later treatment of disposal. Holding tanks may be configured to allow discharge directly into the water, into an **onboard treatment system** or pump-out using a **sewage pump-out facility**. Holding tanks can be constructed from flexible or moulded plastic (polyethylene), fibreglass, reinforced plastic or metal. In terms of their land-based counterpart a holding tank could be conceived of as something akin to a floating cesspit. Refer Appendix 4.

**macerator**
A device installed in a drain line to liquefy excrement and toilet paper through a mechanical process e.g. with cutting blades. When mixed with the water used for flushing the macerated waste becomes slurry which is either directed for storage in a holding tank or discharged directly into the receiving waters. Refer Appendix 4.

**Marine Pollution Bill**
Refers to the **Transport Operations (Marine Pollution) Bill 1994**

**marine toilet**
In terms of their design aesthetic and user interface the marine toilets installed on vessels are almost identical to their land-based counterparts. A marine toilet is built to receive and discharge sewage but not to retain it for an extended period of time (i.e. beyond the flush) or to treat it. Marine toilets may be installed as a flow-through toilet which discharges raw sewage directly into the receiving waters or may be connected to a **holding tank** or an **onboard treatment system** to control the timing, location and quality of discharges. Refer Appendix 4.

**MARPOL**

**Minister**
Unless otherwise qualified in the text Minister refers to the Queensland Minister responsible for marine pollution from vessels in the timeframe specified:
- Hon. David Hamill MP 07/12/1989-21/02/1995 (Australian Labor Party)
- Hon. Rachel Nolan MP 26/02/2011-24/03/2012 (Australian Labor Party)

**Ministerial**
A detailed representation, usually written, made directly to a Minister on a certain issue. Departmental staff are responsible for drafting responses on behalf of the Minister. These departmental responses are modified and approved by ministerial staff before being sent as a response under the Minister's or Senior Ministerial Policy Officer's signature.

**MSQ**
Maritime Safety Queensland [see Queensland Transport]

**nautical mile [nm]**
1 nautical mile equals 1852 metres

**onboard treatment system**
Systems installed on a vessel which treat, disinfect and deodorise sewage waste by chemical or other means.

**portable toilet**
A portable toilet using chemicals to disinfect the waste that discharges to a holding tank. Units are sometimes referred to as portable toilets and commonly referred to by proprietary names including port-a-john™, porta-potty™, and portaloo™. Although designed to mimic the look of a standard shore-based toilet, a portable toilet could be considered to be akin to a modern chamber pot as it is used to collect sewage for
later disposal ashore at a dedicated portable toilet dumping station or in open waters where the discharge of untreated sewage is permitted. Refer Appendix 4.

**portable toilet dumping station**
An onshore facility designed to accept the contents of portable toilets. These units are often located near boat ramps or marina slips. The prominent and open positions of units (primarily for reasons of ventilation and access) may be a deterrent for use by some boaters due to a lack of privacy when dumping toilet contents. Refer Appendix 4.

**pump-out facility**
A facility designed and constructed to remove the contents of a holding tank. It may be a fixed on-shore dock-side facility or a mobile tank and pump onboard a truck, floating pontoon or another vessel. Refer Appendix 4.

**PWO Act**
Pollution of Waters by Oil Act 1973 (Qld)

**Queensland coastal waters**
Queensland’s coastal waters (Queensland’s territorial sea) extend three nautical miles seaward of the low water mark (specifically lowest astronomical tide), seaward of connecting lines across estuaries and mouths of bays and proclaimed baselines. Refer Appendix 5.

**Queensland Transport [QT]**
Queensland Department of Transport, the state government agency responsible for matters relating to transport, including ship-sourced pollution prevention and response. Following machinery of government changes arising from the 2009 state election this department was amalgamated with the Department of Main Roads to form the Department of Transport & Main Roads. Maritime Safety Queensland, an agency established under the Maritime Safety Queensland Act 2002 sits in the organisational structure of the Department of Transport. Prior to 2002 it was known as Maritime Division, Queensland Transport.

**raw sewage**
Sewage which has received no treatment. Also referred to as untreated sewage.

**recreational boat**
A non-commercial vessel of any size designed for non-commercial use, intended to be operated by, and carry at least one person within the confines of a hull. For the purposes of this thesis windsurfers, surfboards, kayaks, canoes and rafts are not considered recreational boats. Recreational boats can be sail, motor, engine or self-powered. Recreational boats may be registered, documented or legally not registered depending on the laws in the governing entity where they are kept or operated. There are approximately 222,381 recreational vessels registered in Queensland.

**recreational boater**
A person who owns or uses a boat for recreational purposes. Often referred to as boaties or yachties.

**Regulatory Impact Statement [RIS]**
A Regulatory Impact Statement (RIS) is required, under the Queensland Government’s requirements, when a regulatory proposal is likely to have an economic, social, environmental or compliance impacts, unless the impacts are of a minor or machinery nature and does not substantially alter existing arrangements.

**sewage**
Wastewater containing excrement.

**sewerage**
The system of sewage collection, treatment, and disposal including the pipes, pumps and plant needed to collect, transport and treat sewage.

**tinnie**
Australian colloquial term used to refer to a small recreational fishing or pleasure boat with an aluminium hull. Generally between 3.8 and 6.8 metres in length.

**TLAB**
Transport Legislation Amendment Bill. These kinds of Statute Law (Miscellaneous Provisions) Bills are used to make minor amendments of a housekeeping nature to a number of pieces of legislation at the same time.

**TOMPA**
**TOMPR**
Transport Operations (Marine Pollution) Regulation 1995 or Transport Operations (Marine Pollution) Regulation 1998 as appropriate
EXPLORING THE UNSPEAKABLE POLICY PROBLEM
Preface: An unspeakable absence

It has been said that the disposal of waste “takes place in the intersection between the private and the public, the borderland where the household meets the city” (Strasser 1999:6). I experienced the fragility of this boundary the summer my son turned five when I discovered we had a plumbing problem; a serious plumbing problem of excremental proportions. I was first alerted to this fact by the foul smell I encountered when returning home from a morning of shopping. I ignored it, went inside and put on a load of washing. As the water from the rinse cycle started to drain the putrid smell intensified. Surely that stench wasn’t emanating from my front yard. I trekked down the front stairs, the fetid odour intensifying with every step. As my feet sunk into the sodden earth of the lawn my worst fears were confirmed—the problem was definitely ours.

My husband called a plumber who, after uncapping the sewer viewer, advised him that our access point to the sewer was blocked by tree roots and the pipes needed to be replaced. The job, he said, would require heavy digging equipment that couldn’t come for two days. When I heard this disturbing news I was mortified. That smell was going to be with us (and our neighbours) for at least another forty-eight hours. Cringing with shame I hoped the neighbours didn’t realise it was ours.

As “the motorways of separation, with contents that have become untouchable and hidden since they left the body and the sink” (Åkesson 2003:3) sewers physically link us to each other and to our waste and simultaneously—in both a real and a symbolical way—serve to sever this connection.
Logically I knew, of course, that the neighbours’ houses were connected to the sewer (just as ours was) and equally susceptible to failure. But on a more personal and emotional level I felt intensely exposed by the simple truth that their waste was safely contained underground while ours (though I must admit most horrifyingly mine) was seeping out and infiltrating the neighbourhood with my stink and the stink of my family. I made sure that I was away from the house the day that the sewer connection lines were cleared and replaced and I self-consciously avoided eye contact with my neighbours for days after the problem had been resolved and all traces of my olid shame had withdrawn.

For an issue to make it onto the policy agenda requires “that what was once a private concern [to be] now transformed into a policy issue” (Maddison & Denniss 2009:127). Until this unsavoury incident, as an experienced government policy officer and PhD student undertaking research into improving policy making practice, I had believed that I well understood the social and environmental implications of, and acceptable content for, policy making. However, as I reflected on what had happened (and my somewhat irrational overreaction to it) I became more keenly and personally aware of the profound impact that public policy can have on our perceptions of what morally responsible behaviour means, and how to enact it (Nyborg 2003).

Because the region where I lived was, at the time, subject to severe water restrictions, I had started my day with a four minute shower timed diligently using a blue-sand timer provided by the Queensland Water Commission for this purpose. I had placed a full-load of laundry into the new front-loading water-saving washing machine that I had recently purchased with the support of a generous government rebate scheme. Prompted by the publicised problem of algal blooms in the nearby Pumicestone Passage I had used biodegradable phosphate-free laundry detergent. I chose the cold water wash cycle to save electricity because I was reminded of the impacts of climate change as I listened to *Radio National* on the drive home from the supermarket. I silently cursed the drought hardy native species of trees we had planted to attract local birds but had inadvertently destroyed our sewer lines. They had been provided as free tube stock from a makeshift government information stall one evening on the commute home.
Around me, various government policies and the media had been providing information, objects and admonishments to remind me of my moral responsibility to live a more environmentally sensitive life by highlighting the implications of my daily habits on the environment and how I could change to enact more ecologically and socially acceptable practices. This process of moral regulation used cultural and discursive practices, routines and rituals to normalise moral orders and set boundaries in which certain ways of understanding, thinking, questioning and action were encouraged or discouraged (Wall 2000:251). The various policy messages I had encountered on this day were both persuasive and pervasive, focusing on my individual responsibility (and implied irresponsibility) across a range of personal issues such as my consumption of natural resources like water and energy, and less tangible ones such as climate change. However, sewage management was never among them and, to be perfectly truthful, I never expected it would be. Excrement is simply not something that one talks about in either policy circles or polite company. It is true that during the water restrictions policy discussions about dual flush toilets did occur but these were focussed on their water saving benefits and encouraging their installation, while policy discussions in nearby regional centre of Toowoomba about water reuse focussed on the technical merits of the proposed system. Unlike infrastructure issues such as water use and supply, which receive considerable media attention and government support, nobody talks about [sh]it because it isn’t “sexy” (ABC 2008:1).

Despite the well documented public health, environmental and social consequences of poor sanitation (WSSCC 2002; SIWI 2005), the subject of the management of faecal waste tends to be studiously overlooked at the general policy level (as opposed to the sanitised technical engineering level) because policy makers, politicians and the general public are reluctant to engage, publicly or privately, with excremental issues (Rosenquist 2005:345). As a result, the public promotion of excremental issues is both politically courageous and deliberately defiant because “sanitation is unglamorous and taboos are obstacles, [and] politicians almost anywhere would rather be seen opening a water treatment plant than a toilet” (Mottram 2008:1).
Sewage disposal is regulated through policy activities such as the development, administration and enforcement of legislative instruments, public infrastructure standards and private personal norms. It must, therefore, logically follow that by virtue of being a policy problem with its own regulatory regime, the disposal of human faeces must be a legitimate topic for policy making discussions. But as I contemplated my experience and the sewer and its contents’ uninvited entrance into my life, my lawn and my consciousness, I began to question what now seems to be—upon reflection and years of research—a somewhat naive assumption. Are certain issues too unspeakable to be part of the policy process? And what happens when they rear their ugly head and demand discussion? This thesis is concerned with understanding what happens when unspeakable problems such as these are made the focus of public policy and how they might affect policy processes, participation and outcomes.
CHAPTER ONE

Introducing the unspeakable

Introduction

Collaboration, deliberation and communicative rationality have been posited as a way forward for addressing wicked problems. However, some present the additional challenge of high levels of psychosocial sensitivity and verbal proscription. The unspeakable nature of such problems makes them particularly problematic within rational deliberation processes because they are quite literally issues that we cannot or will not talk about. Due to its taboo nature and inherent unspeakability excrement is negatively charged in Australian society. As a result verbal, olfactory and physical encounters with it elicit feelings of disgust and embarrassment—even perceived or imagined contact with it causes offence. This makes it difficult for excrement to the subject of policy making, particularly in emerging debates concerning the use of recycled water or the oceanic disposal of sewage waste from boats or land-based outfalls.

As a paradigmatic unspeakable problem, this research focuses on a case study of the controversial regulation of sewage discharges from recreational vessels to understand what happens when unspeakable problems such as these are made the focus of public policy and how they might affect policy processes, participation and outcomes. Using critical discourse analysis and an interpretive approach to policy analysis through this research I highlight the discursive strategies used in this policy making debate and the policy implications of the way the unspeakable object and subject were constructed, particularly in terms of the strategies used to influence the creation and definition of the policy problem, control the range of policy contributions that were considered legitimate, and restrict the range of issues for discussion and the possible solutions.
Placing the unspeakable and its socio-cultural considerations at the forefront of enquiry enables us to more clearly recognise the implications of the unspeakable policy problem and the need for a more contextually and culturally situated policy approach which accommodates both emotional and embodied talk alongside more abstracted and technical policy contributions.

**Making public policy**

In its most broad sense public policy encompasses the legislative and administrative decisions taken by governments to address social, economic, environmental or other ‘problems’ (Ward & Stewart 2010:282); in short, public policy is “an authoritative statement by a government about its intentions” (Althaus, Bridgman & Davis 2007:5). However, the practice of governments making unilateral policy decisions—even when these decisions are seen to have satisfactory environmental, social and economic outcomes (the triple bottom line of sustainability)—is no longer acceptable to the community or considered good practice by policy makers. The public is demanding more information about government activities, more transparent and open decision making, and a greater direct role in the policy decisions that affect their lives. Policy makers also recognise that implementing social and environmental policy change requires the active involvement and support of a wide array of stakeholders (Australian Government 2007). As a result public involvement has become an expected feature of Australian policy making and the success of consultative efforts in including the views of key stakeholders and the public is often one of the key performance measures for overall policy success (Curtain 2000:36).

Bridgman and Davis’ (Office of the Cabinet 1996) model of the policy cycle was one of the first concerted attempts to cement public involvement in Australian policy making efforts, presenting consultation (or public input) as discrete stage in their eight stage policy cycle. This model is particularly relevant to this research because it was first proposed by Bridgman and Davis in the *Queensland Policy Handbook* (Office of the Cabinet 1996) before being elaborated in the *Australian Policy Handbook* (Bridgman & Davis 1998). This volume has been revised, expanded and updated several times and is currently in its fourth edition with additional material (see Althaus, Bridgman & Davis 2007).
The initial Queensland handbook was developed, in the wake of the landmark Fitzgerald Inquiry into corruption in Queensland, when Davis accepted an invitation to provide advice to the newly elected Labor government on public sector reform and the implementation of a host of processes to enhance government accountability and transparency. As exemplified by Bridgman and Davis’ model, traditional policy thinking suggests that the best way to work through a policy problem is to follow a logical, orderly and sequential process, working from problem identification to solution (APSC 2007:11). Following this tradition, the policy cycle presents a routine “sequence of procedures and processes, rules and conventions” (Bridgman & Davis 2004:21-22) to assist policy makers to understand and structure policy making. While recognising that each step may not happen in the prescribed order, their model sets up policy making as a logical and structured process through which, they suggest, good policy is the result of the application of and adherence to a process-driven approach (Bridgman & Davis 2004:23). Notwithstanding that effective policy making is aided by the application of appropriately rigorous and orderly administrative processes, some have criticised the very idea of a policy cycle on the grounds that it fails to adequately account for the fact that policy processes rarely proceed as logically as the model suggests (Ward & Stewart 2010:285) and are, instead, opportunistic and driven by events and circumstances, rather than a process of rational choice with clearly defined goals (Everett 2003).

While such a view perhaps mistakes the process for the environment in which it is intended to operate, the very notion of the policy cycle has been labelled an ideal which bears little resemblance to the political reality of policy making in which the context of the policy process is more influential in driving actions and decisions than the notional stages in the cycle (Colebatch 2006). On these grounds, such a view of policy making has been criticised for failing to adequately account for how particular issues get on the political agenda and how contentious decisions are actually made (Everett 2003:68).

Bridgman and Davis (2004:32-33) acknowledge the limitations of their generic model noting that “a policy cycle cannot capture the full ebb and flow of a sophisticated policy debate, nor does it accommodate fully the value-laden world of politics”. Indeed in the fourth edition of the Australian Policy Cycle, with Catherine Althaus as lead author,
some of these limitations begin to be addressed and issues such as policy networks, policy learning and feedback loops considered.

As policy officers and the public are aware, “politics usually derails ordered policy-making...[which] is by its political nature, disordered and untidy and not an orderly, always rational process” (Ward & Stewart 2010:285). However, despite recognition of the complexity and political nature of policy making, the public and policy makers alike are seemingly expected to limit policy making input and decision making data to the hard facts and scientific or other empirical, objective evidence rather than subjective impressions and values which are rejected as being irrational, irrelevant and baseless. Such an objective orientation to policy making acts on the mechanistic idea that:

…variables such as ideas and values are to be eliminated or minimized to the degree possible. In those cases where they prove unavoidable, efforts should be made to find quantitative indicators that can stand in for them (Fischer 2003:22).

Despite values being a fundamental part of both politics and policy making, this overt focus on the ‘objective facts’ tends to emphasise the need for policy making to adopt processes which support “vigilant policing...to keep emotion from creeping in where it does not belong” (Maroney 2006:125). This strong push toward evidence-based policy making informed by rigorously established objective evidence emphasises the importance placed on quantitative analysis and scientific data above experiential knowledges (Head 2009).

White (1994) charges that policy making traditionally takes a narrow and technocratic approach to policy choices, which diminishes the meaning of politics and obscures the role of values in defining policy alternatives. She suggests that policy analysis needs to include “reasoned reflection about political values and critical reflections about the assumptions in any policy” (White 1994:508). Policy making needs to make the implicit moral principles and assumptions in policy clear “so that they might be defined, defended, and challenged” (Gillroy & Bowersox 2002:4).
While environmental policy is often “discussed as if politics and morals were mutually and necessarily exclusive subjects” (Gillroy & Bowersox 2002:2), models of policy making that fail to recognise that people are social beings, and that values, mores and emotion are the foundation upon which policy is built are fundamentally flawed (Maroney 2006).\(^1\) Approaches to policy making which reinforce this synthetic rational ideal and promote traditional policy outputs such as legislation as the ideal of reason (Chaplin 2005:62) allow important issues of values, morals and emotion to remain neglected or forfeited behind the rhetoric of process-driven objectivity. This omission is particularly deleterious in policy processes which deal with complex social and environmental issues that have a moral or affective significance. For instance, as Queenslanders (and others) have seen in the rejection of proposals for water recycling, such purely technical or scientific approaches to policy making often fail to successfully compete with the affective approaches of dissenters which respond to subconscious psychological needs and values. Policies are more likely to be adopted if, in addition to gathering and presenting evidence, they recognise and adequately respond to intangible things like emotion, symbols, faith, belief and religion (Frieberg & Carson 2009) as an important part of the policy making landscape.

Talking public policy

According to Fischer (2003:30), policy can be understood “as the communicative interactions among political actions that translate problems into policy issues”. Based on this understanding, the accepted ways of talking about policy problems have the potential to restrict what are perceived as legitimate voices or concerns in these debates. The language used to discuss these policy problems and solutions can significantly affect the credibility and influence of those involved in these discussions and can limit or expand the space to question the desirability of current practices and close down or liberate our imagination as to how things could be different. The language used in policy making can therefore act to reinforce an existing hierarchy in which some forms of knowledge and decision making are given greater legitimacy or privileged over others. As a consequence, other forms of knowledge (and by extension, the people and

\(^1\) Maroney (2006) provides a number of examples to support her claim that policy making routinely takes account of emotions such as fear, grief and remorse in the criminal law and by measuring emotional suffering in tort law.
communities they represent) may be effectively excluded from participating in or influencing policy. Devaluing alternative forms of reasoning and information can have the effect of marginalising the knowledge and needs of the communities represented by them, and can act to actively discourage their participation (Young 1995). In particular, an objective facts-based policy approach discourages “the public’s expression of emotional values when presenting their view” (Magill 1991:16).

While Freiberg and Carson (2009:3) argue that affective or emotional arguments have a legitimate, if not a vital, role in public policy discourse, this is even less likely to occur in policy processes where participants, policy makers or both find it difficult to talk about a policy problem without passion—or for that matter talk about it at all—because it is considered taboo, offensive or unacceptable to talk about. Such policy problems are often characterised as morality policy (Mooney 2001) because their debates are focussed on moral arguments and value clashes. As a result, privileging rationalistic forms of participation and expression also “mitigates against the adoption of a diversity of contestation; whereby individuals can protest about and involve themselves in policy formulation” (Eden 1996:196).

A key element of morality policy is that conflicts are principally about values and not economics, upon which most non-morality policy centres (Studar 2001). Consequently, Goggin & Mooney (2001:133) argue that environmental and pollution policy are not morality policy because they are “debated in terms of facts supported by science and analysis”. Their ideas have much to offer, but here I disagree with their assessment. As Douglas MacLean (1990:85) argues “moral issues drive debates over proposed [environmental] legislation”. The environment is often presented as a moral issue, particularly with respect to individual’s or governments’ moral responsibility to minimise environmental harm to the extent that former Australian Prime Minister Kevin Rudd characterised climate change as the great moral challenge of our time (Stuart 2010). Environmental policy debates are traditionally an amalgam of traditional science (which is generally characterised as value-neutral), counter-science, and so called anti-science which includes morals and feelings (Eden 1996:194). However, the moral, ethical and emotional arguments are often denounced as “irrational, anecdotal and unscientific” to exclude this input from environmental policy debates (Eden 1996:196).
A contemporary example is the debate surrounding the Senate Inquiry into government approval processes regarding the abortion drug RU486 (PCA 2006). The Inquiry was established to determine whether the Therapeutic Goods Administration should have the authority to approve the use of the drug as it does with all other medications in Australia, or if the approval of this drug should be restricted to the decision making powers of the Federal Minister for Health. The emotional tenor of arguments promoted by anti-abortion campaigners impacted negatively on their attempts to influence the policy debate because they were accused of being unable to adequately separate the legal procedural decision under review, from the broader moral issue of abortion more generally (ABC 2006a, 2006b).² They presented their claims almost exclusively in a moral discourse regarding the sanctity of human life and in a way that was seen by many involved in the Inquiry decision making processes as unscientific, unprofessional, and lacking an objective base and therefore clearly at odds with the scientific, bureaucratic and legal discourse that tends to dominate policy making (Goodie 2006). The value of their contribution was questioned by those heading the Inquiry, who labelled the petitioners irrational and rejected much of their input as baseless. It was claimed that the anti-abortion activists had “flooded” the Inquiry with hostile letters and “misleading”, “emotive” and “scary” submissions (ABC 2006b) filled with “false claims and emotive language” (ABC 2006a). As a result, in Australia at least, the anti-abortion lobby has been largely unsuccessful at setting themselves up as respected ‘experts’ in policy deliberation processes, not because of the strength or otherwise of the legal claims, but because they present these claims in such an obviously emotional way (Goodie 2006).

While I do not support the position advocated by the anti-abortion activists with regard to the approval of RU486, I find surprising the unambiguous rejection of their views as irrational and without merit almost purely on the basis of their overt moral and emotional claims. This is particularly the case because abortion is generally recognised as a morality-based policy issue in Australia (Mylchreest 2001), as evidenced by the practice of free or conscience votes on abortion-related policy debates allowing members of

² It should be noted that this tendency was not restricted to members of the general public or lobby groups. Indeed Pringle (2008:196) notes that those members of parliament who supported the bill tended to understand it as a technical matter of decision making, while those who opposed the bill generally understood the bill as being about access to abortion.
parliament to cross the floor and vote according to their personal values and beliefs, rather than along party lines as is traditional in Australian politics (Pringle 2007, 2008).

The very idea that rational thought is unemotional needs to be contested (Ahmed 2004:82) because it presupposes that unemotional contributions to public debates are somehow more valuable and less partisan. Indeed, when unspeakable issues, like abortion policy, are debated they often lead to:

…what can be seen to be an embarrassed, frustrated admission [by participants and policy makers] that the normal channels of logical and empirical argument are inadequate…that the debate has been reduced to first principles and that the policy arising from such a debate can be characterised as morality policy (Mooney & Lee 2001:175-176).

As such, debates about issues like abortion policy are in reality less disagreement about the facts than they are contests over the threatened loss of public sanctioning of a set of values, beliefs and feelings (Luker 1984 in Yanow 2000:8). Because the very idea of an issue like abortion “is deeply meshed with our ideas about power, control and being civilized” (Cowan 2002:42) policy making “has no choice but to traffic in emotions” (Bandes 1999:7). It is therefore beholden on policy makers to acknowledge and attempt to understand them and to consider their social and political implications.

In cases like the one described above, the emotional content is obvious and relatively easy for policy makers, analysts and members of the public to identify, isolate and evaluate. However, this is not always the case. Bandes (1997:2) points out that these emotions “are often so ancient and deeply ingrained that they are largely invisible”. It is therefore important that scrutiny is also applied to policy processes where “the emotional content may seem less salient, more…civilized” because this lack of “obviousness renders the effect of emotion…insidious and all the more important to identify” (Bandes 1997:5).
Reconsidering a generic approach to complex policy problems

It is often thought that the more complex the problem is, the more important it is to follow an orderly policy process. However, such a linear, traditional approach to policy formulation fails to adequately engage with such policy problems and their inherent interactivity, uncertainty and social complexity (APSC 2007:11). Even Althaus, Bridgman and Davis (2007:54) admit that the policy cycle fails when confronted by wicked problems which serve as “a reminder that the capacity of government to impose its will on a recalcitrant world is always limited”.

In what has become a seminal policy and planning essay, Rittel and Webber (1973) introduced the concept of ‘wicked’ policy problems; an idea which has gained popularity in recent years as it neatly describes the challenges faced by today’s social and environmental policy makers and planners.

The idea of a wicked policy problem foregrounds the centrality of the policy problem to the policy process. Broadly speaking, wicked problems are characterised as policy problems which are socially complex and have no clear solution. As shown in figure 1.1 the features of wicked problems (Rittel & Webber 1973; Conklin 2006; APSC 2007) can be understood to fall into three main categories: uncertainty, value divergence and complexity.

**Figure 1.1: Characteristics of a wicked problem**

- **Uncertainty**
  - the problem is difficult to define and subject to continual redefinition
  - the problem is not stable and has no clear solution or end
  - attempts to address the problem lead to unforeseen consequence and every attempt to solve it counts significantly and changes the understanding of the problem

- **Complexity**
  - the problem has many interdependencies, is multi-causal and a symptom of a bigger problem
  - the problem is socially complex and unique
  - the problem is characterised by chronic failure

- **Value Divergence**
  - there is significant disagreement between stakeholders as to how to solve the problem
  - addressing the problem involves changing behaviours
  - addressing the problem does not sit within the responsibilities of one organisation or profession and there is no clear agreement regarding who the legitimate problem solvers are
Wicked problems can therefore be understood to occur at the intersection of policy problems characterised by a high degree of: complexity of elements and interdependencies; uncertainty of knowledge, risks, consequences and changing patterns; and value divergence (figure 1.2) (Head 2008, 2009).

Contemporary examples of wicked problems include climate change (APSC 2007; Howes & Dedekorkut-Howes 2010; Lazarus 2008), indigenous disadvantage (Hunter 2007; Head 2008; Johns 2008), water resource management (Lach, Rayner & Ingram 2005), fisheries and coastal governance (Jentoft & Chuenpagdee 2009), marine pollution (Williams 1996), sewer mining (Logan 2008) and water reuse and recycling (Mikhailovich 2009).

While these are clearly complex and wicked policy issues in themselves, some wicked policy problems and the policy processes that surround them are further complicated by a significant moral dimension (Wexler 2009:531), various factors related to psychology, sociology, religion and culture (Goldman 2004), the regulation of intimate processes and bodies, and strong elements of abjection and symbolic pollution. Often these factors are obscured and inadequately acknowledged or addressed in the policy process.

These kinds of wicked policy problems tend to exhibit high degrees of psychosocial sensitivity. Psychosocial refers to factors that are both social and psychological in origin and the ways in which the two may combine (Berry et al 2007:1). While psychosocial factors cannot be examined to the same degree as empirical data (Goldman 2004), their importance in policy making is beginning to be acknowledged in fields such as welfare dependence (Berry et al 2007) and public health (Goldman 2004). High levels of
psychosocial sensitivity can impact on the way that policy problems can be thought about or are reacted to, either as an individual or as a society. This can include the ways that these issues are talked about. Consequently, these policy problems are also often characterised by varying degrees of verbal proscription.

These types of policy problems seem to be particularly intractable because they are quite literally problems that we don’t like to think about and have difficulty talking about. Consequently, a combination of these factors can have significant impacts on the ability of these policy problems to be discussed in a productive manner, if at all. As a result, policy problems which exhibit high levels of both verbal proscription and psychosocial sensitivity have a tendency to become somewhat unspeakable (Grant-Smith 2011a). Understandably, the higher the levels of verbal proscription and psychosocial sensitivity, the more problematic these unspeakable problems become.

**Accounting for the unspeakable in policy making**

As Majchrzak notes “[t]he process of making policy is as complex as the social problem itself” (in Maddison & Denniss 2009:219). Good policy making requires the acknowledgement of conflicts, paying focused attention to psychosocial factors, and expanding the scope of professional and public discussion of the policy issues involved (Goldman 2004). However, while the communicative turn in public policy making has enshrined concepts of public involvement, it has arguably had a more limited impact on the ability of policy development processes to adequately deal with a range of unspeakable policy problems such as water reuse and recycling, the community release of sex offenders following incarceration and planning approval for unpopular land uses such as brothels (Crofts 2006), funeral parlours (Hillier & Gunder 2005) and sex shops (Papayanis 2000).

Despite their presence in our daily lives, unspeakable problems are not, by their very nature, something that we like to think about; let alone talk about. However, the way that we talk about a policy problem has a strong relationship to the ways we can think about it and relate to it and the range of policy and other solutions that we can both conceive and enact. The language of policy making and the way that a policy problem is defined and framed can impact on how effectively this happens. As individuals we try to deny
the very existence of excrement and other unspeakable filth. In Australia, we live in a society where practically all dirt is systematically and silently removed from our lives whether it is through our daily ablutions practices, having rubbish removed, street sweeping or the simple flush of a toilet.

Our reluctance to engage with the unspeakable is made possible by our current verbal and sensory practices and the infrastructure that both supports and reinforces them. Policies are developed to support our struthious desires. From the mundane to the unimaginable, the unspeakable, the unsightly and the unthinkable are systematically removed from our sight, our perceptions and consequently our minds.³ Homeless people are swept out of sight using move on laws⁴ while refugees and asylum seekers are banished to detention centres in remote locations, much like our nuclear waste.⁵ Their absence from sight and perception makes them less real, less pressing and less deserving of continued public attention and consideration. Somehow, their unspeakable nature makes them seem less able to be discussed in the rational and considered way that conventional policy making demands. However, it is proper for “policy makers to take moral arguments seriously” (MacLean 1990:89). Indeed, “where these feelings are rejected in policy debates so is a whole realm of significant import to the design and implementation of…policy” (Eden 1996:196).

³ Schweik (2009) tells the tragic story of the ugly laws passed in cities across the United States in the late 1800s and early 1900s. These odious laws prohibited people who were “diseased, maimed, deformed so as to be unsightly or disgusting objects” [my emphasis] from “exposing themselves to public view” (Chicago City Code 1881 in Schweik 2009:1-2). Startlingly, most ugly laws were not repealed until the late 1960s to mid 1970s.

⁴ For example, Brisbane City Council in Queensland, Australia sought the expansion of police move-on powers under S37-39 of the Police Powers and Responsibilities Act 2000 (Qld) into a number of major public spaces in 2005/06. Significant concerns were raised that these move-on powers had the potential to have significant negative impacts on the mobility and freedoms of homeless and indigenous people. These included ensuring that only a person’s behaviour and not merely their presence could trigger a move-on direction and the need to ensure that move-on directions were only provided if there was a reasonable likelihood that the safety of security of others would be threatened unless there was police intervention (Taylor & Walsh 2006).

⁵ In 2010 the then federal government proposed the establishment of a nuclear waste dump at the remote Muckaty Station—virtually in the middle of the Northern Territory—contrary to the strong opposition of the Territory Government (Keane, 2010).
Addressing the research agenda

Mooney (2001:5) argues that scholars of public policy have tended to avoid the study of policies which seem “to move us out the realm of facts and reason…and into the realm of values”. Through this research, I seek to understand what happens when an unspeakable problem is made the focus of policy making and how unspeakable policy problems affect policy making processes and outcomes.

As shown in figure 1.3, this thesis is presented in three parts and addresses three central research questions.

Q1: What happens when the unspeakable is made the subject of policy making?
Q2: In what ways is the unspeakable discussed in such policy making processes?
Q3: How might different ways of talking about such policy problems impact on policy making and our relationship[s] with the unspeakable?

Part 1: Exploring the unspeakable policy problem

In terms of its content, my research focuses on a specific sub-set of unspeakable policy problems—those dealing the regulation of excrement. As the ultimate taboo, steeped in emotion and characterised by extraordinarily high levels of psychosocial sensitivity and verbal proscription, excrement is an appropriate expression of the idea of an
unspeakable policy issue. Part 1 focuses on developing a framework for theorising unspeakable policy problems and for understanding the regulation of sewage as an unspeakable policy problem. Combined, the four chapters of this part set the broader comparative, theoretical and historical context for the case study presented in Part 2.

In Chapter 2, I detail the research approach and methods used to conduct this research. The research methods and approach described are concerned with the collection, interpretation and analysis of data which traces the implications of the unspeakable on a policy process. I commence by justifying the case study approach adopted and the selection of case study. I then outline the data collection process through the use of a case study built using interviews and interactions with policy makers and the analysis of key texts. I also consider issues associated with the design and conduct of this research related to its unspeakable focus and sensitive nature including the impact of insider status, confidentiality and addressing taboo subject matter. I also outline the policy and discourse analysis approach used to interpret and understate the case study based on my critical realist position. Information supporting the research process, relating to its conduct and ethics approval, is provided in Appendix 1. A detailed list of data sources is provided in Appendix 2.

In Chapter 3 I show how shifting discourses, economic, environmental and political forces converged to make “shit thinkable as a public problem and unthinkable as a private secret” (Hawkins 2006:50) and unspeakable as a policy problem. This shift had significant material consequences in terms of the ways that sewage waste was managed but it also saw the transformation of “the management of a life sustaining human function into a psycho-social taboo topic” (Hepworth 2000:xii). No longer openly spoken about this socio-historical exploration shows the impacts of this shift which saw the closeting of all things scatological which in turn made them shameful and unspeakable. Due to its unspeakability excrement is negatively charged in Australian society and verbal, olfactory and physical encounters with it elicit feelings of disgust and embarrassment; even perceived or imagined contact with it causes offence. This makes it difficult for excrement to be the subject of policy making, particularly in emerging debates concerning the recycling of wastewater or the oceanic disposal of sewage waste from outfalls or vessels. This is problematic as government’s around the world are faced
with the prospect of having to develop laws to regulate the sewage disposal practices of recreational boaters on this basis of environmental concerns and a public demand that boaters take personal responsibility for their ‘flush and forget’ disposal practices. This is further exacerbated by the highly resistant response of recreational boaters, even in jurisdictions with long history of regulating such discharges. Through socio-historical analysis I conclude that this level of dissent against imposed sewage regulations is part of a history of resistance to the forced imposition of changes to sanitary practices.

In chapter 4 I further develop the idea of the regulation of the disposal of human faeces as an unspeakable problem. Unspeakable problems often elicit disgust responses because they invoke ideas of physical or tangible pollution or moral and societal filth and often involve the regulation of intimate processes or bodies. The psychosocial aspects surrounding pollution potential make unspeakable problems, particularly excremental ones, problematic and difficult to both legislate and to speak about in a policy context. In this chapter I present a framework for understanding unspeakable problems with an excremental base which highlights the ways in which sewage regulation is construed as an unspeakable problem based on the construction of human faeces as matter out of place. Building on Bašić’s (2001:137) observation that maritime sanitary practices and infrastructure cannot be viewed separately from the development of their terrestrial counterparts, using land-based sewage regulation both as a foundation and point of comparison I consider the regulation of sewage within a number of contemporary contexts including the construction of ocean outfalls, recycled water proposals and the regulation of vessel-sourced sewage. These excremental regulatory instances are considered within a theoretical framework, built on the work of Mary Douglas and David Inglis, which elaborates on the symbolic, practical and material elements of the mode of excretion through which I position the management of human faeces as an unspeakable problem.

**Part 2: Understanding excrement as an unspeakable policy problem**

Part 2 presents the case study that provides the grounding for this research. This case study is used to understand whether, and if so in what ways, unspeakable policy problems impact on policy making processes and participation. In this part my analysis is guided by my first two research questions.
In Chapter 5 I present the case study which focuses on the regulation of sewage discharges from recreational vessels in the Australian state of Queensland between 1994 and 2011. I establish and define the policy context for the regulation of sewage in the marine environment specifically, to place the case study in its broader comparative, historical and regulatory context. I then provide a detailed examination of the policy process adopted, including the development, implementation, subsequent review and enforcement of Queensland’s regulatory regime to manage the discharge of sewage from recreational vessels. The case study is explored through the analysis of interviews, key consultation and policy texts, public submissions, media reports, and Hansard and other parliamentary reports concerning a policy process for the regulation of sewage discharges from recreational boats. This case study highlights the high degree of dissent and conflict that accompanied the introduction of the laws. It shows that despite considerable consultative efforts and an uncharacteristically large number of legislative amendments between 1994 and 2010, the laws continue to attract limited compliance or support from recreational boaters. It also demonstrates that although as a general rule excremental matters are little discussed in public, when forced into a policy making process they can be extremely rhetorically productive.

Because a nuanced understanding of the case study used in this thesis presupposes considerable knowledge of nautical and scientific terminology, concepts and legislation I have made extensive use of footnotes to explain these matters when they appear in the text and have provided detailed appendices to orient the reader to in relation to these matters. Appendix 3 defines the potential public health, ecological and aesthetic impacts of sewage discharges. Appendix 4 provides background detail regarding the infrastructure used to manage sewage discharges from vessels and compares these to land-based infrastructure with which most people, including boaters, are more familiar. Appendix 5 details the regulatory and policy context for the international, national and local regulation of vessel-sourced sewage discharges. Appendix 6 outlines the process for the development of legislation and subordinate legislation in Queensland while Appendices 7 and 8 provide detail on the operation of the case study including cataloguing changes to the legislation and regulation. Combined these appendices provide the background necessary to understand the regulatory and practical context of the case study.
In the final chapters (6 and 7) of this part I interrogate the case study texts, identify the
different ways the policy problem was framed and present the key themes arising from
analysis using an interpretive approach to policy analysis (Yanow 2000) informed by
critical discourse analysis (Fairclough 2003). The texts are analysed through two lenses,
the findings of which are presented in Chapter 6 and 7.

The first analytical lens, presented in Chapter 6, distils the elements of the case study that
can be considered to be common across policy making for recreational boating. This
reasonably consistent set of rhetorical and claims-making strategies, used by boaters to
resist the imposition of environmental regulations, to acquire legitimacy and externalise
responsibility and blame, are generally the focus of policy makers and participants.
Although these claims were presented in an emotional tenor they were in a large part
focussed on a perceived intrusion into recreational boating space and an upsetting of the
recreational boating ideals of freedom and control; freedom from rules and
responsibility, and control of oneself. While undeniably emotional in their presentation
these claims tended to avoid a detailed discussion of excrement, other than as a scientific
or environmental issue. As a result, these claims were generally considered to be
legitimate public concerns with a place in the policy process. From this base I begin to
tease out the elements of the case study that might be better understood through
attention to the presence of the unspeakable, in particular identifying where and how the
presence of excrement as the policy focus may have made a difference in terms of the
policy process, outcomes and participation.

The second analytical lens, presented in Chapter 7, focuses specifically on those aspects
of the case study that might be considered to be unspeakable. These unspeakable
elements are generally considered to be matters that are, or at least should be, outside the
official policy process. In this chapter I consider the possible impact of these
unspeakable elements on participation and policy outcomes. This is based on detailed
consideration of the identifiably excremental discourses of recreational boaters and
others. Through this analysis I determine that although it is claimed that excremental
matters are little discussed in public, the paradox of rendering something unspeakable
involves enormous levels of discursive activity through which it becomes both politically
powerful and provocative. Indeed the very unspeakability of shit worked to make the
policy process a noisy and scatological debate which made shit a visible object of public attention and political conflict. This does not mean, however, that excrement was easily and freely discussed. Quite to the contrary, the inability to openly discuss boaters’ bodies, bodily functions and excrement resulted in a range a circumlocutory discursive strategies which extended in varying measure through a range of privileged and rational discourses and emotional gender and disgust discourses. These evasive strategies to avoid talking directly about the relationship between the boating men and their waste resulted in an unsuccessful focus on technical and infrastructure solutions to attempt to change recreational boaters’ disposal practices and on rational science (and environmental) education to attempt to change boaters’ attitudes toward the management of their waste. Indeed, these economic, scientific, environmental and infrastructure matters were pursued at the expense of recognising and dealing with these more fundamental excremental and emotional matters. These sublimated, in some ways repressed, excremental-emotions emerged elsewhere in the policy process in abusive rants and hyperbole that sought to maintain masculine identity by attacking the identity and motives of policy makers, environmentalists and enforcement officers or by relying on existing gender tropes to foreground the grossness of women’s leaky bodies as a foil for their own continent bodies.

Part 3: Re-imagining the unspeakable policy problem

Parts 1 and 2 show that when dealing with unspeakable problems as part of a policy process their discursive, symbolic, affective and political elements must be explicitly considered and addressed. In policy processes dealing with excremental matters there needs to be a focus on understanding and responding to a range of community attitudes and those involved in policy processes must have the ability (and permission) to express value judgements and beliefs about policy proposals that go beyond rational contributions and scientific evidence. And policy makers need to find ways to accommodate such contributions as a legitimate part of the policy making process. This final part (Part 3: Chapters 8 and 9) responds to my final research question and provides a discussion of the findings and significance of the research. This part of the thesis is more speculative and reflects on the literature review presented in Part 1 and the case study analysis presented in Part 2.
I discuss the aspects that currently prevent unspeakable issues from being addressed in policy processes and offer a way forward in terms of addressing the psychosocial sensitivity surrounding them, particularly in terms of shame, and addressing the attendant verbal proscription, most specifically the lack of an appropriate vocabulary. I reflect on how re-imaging unspeakable policy problems could enhance policy making and begin to look for openings through which to begin to change policy practices regarding unspeakable policy problems and discuss how exposing and revealing the repressed can disrupt norms and expose their contingency. I specifically consider how other ways of talking about excrement, as an example, could create this change and how policy processes might create a space for starting these unspeakable conversations. It is hoped that such a move will allow us to reconnect with the unspeakable, both its positive and negative aspects, and to discuss them more freely. Because if the unspeakable remains absent as something that we can’t talk about, it cannot exist as a fully-formed policy issue, and its social and environmental impacts will remain obscured and unresolved.

**Conclusion**

Reid (1993) tells the tale of the nineteenth Century Parisian sewer tours designed to provide ordinary middle and upper class citizens with an opportunity to experience the sewer first hand. While Sutcliffe (1992:620) suggests that the sewer tours were instrumental “in converting the underworld [of the sewer] from a threat to a reassurance”, Reid (1993:144) suggests that the image impressed upon the public on these sewer tours was problematic because it presented a sanitised version of the sewers. In support of this view, Reid describes how the sewer workers were required to dress in white to emphasise the purported cleanliness of the environment in which they worked. He also notes that administration saw that the tours were conducted in the nicer parts of the sewer system which were cleaned and disinfected before the tours took place. He reports that the Parisian sewer men resented this sanitised portrayal of their work preferring instead a more realistic representation which acknowledged their role as the foundation of hygiene and “guardians of order” (Mennell 1992:486) and which allowed visitors to experience the true conditions in which they worked. In doing so they sought to shed light on what they did, what it was really like and why it was important.
Like these sanitised sewer tours many policy analyses focus on the meaning of policy processes but not their substance. Unlike the sewer tours which promised a glimpse of the unspeakable but presented a sanitised account, this thesis is about more than just opening up manholes and peering into the depths below from the safety of the surface but denying its murky depths. On this journey we will tour the sewer in a glass bottom boat tracing the unspeakable back to its source, re-emerging to hold up for inspection the filth uncovered, and finding substance for its transformation into something productive and speakable. To paraphrase Sutcliffe, it is hoped that in some small way this thesis will present a step toward achieving what the Parisian sewermen sought to accomplish in converting the unspeakable from a threat to, if not exactly a reassurance, at least something able to be spoken about.

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6 James Walker was Mayor of New York from the mid-1920s to early 1930s and is commonly attributed with the quote “A reformer is a guy who rides through the sewer in a glass bottom boat” (Walker 1990:269).
CHAPTER TWO

Case study approach and method for interrogating the unspeakable policy problem

Introduction

In this chapter I detail the research approach and methods used to conduct this research. These focus on the collection and interpretation of data which traces the implications of the unspeakable on the policy making process and outcomes. I commence by outlining the data collection process, a case study built using interviews and interactions with policy makers and the analysis of key texts. In this discussion I discuss issues associated with the unspeakable focus and sensitive nature of the research including the impact of insider status, confidentiality and addressing taboo subject matter. I then outline the policy and discourse analysis approach used to interpret and understand the case study based on a critical realist position.

Employing a case study approach to explore the unspeakable

This research is grounded in a single complex case study which considers policy making for the regulation of the discharge of sewage from recreational boats in the Australian state of Queensland. The detailed nature of case study research and its tendency to “focus on holistic description and explanation” (Berg 2007:284) makes it an ideal approach for understanding complex issues (Flyvbjerg 2006) and particularly for understanding what happened by addressing the what, how and why of my first two research questions (Yin 2004: xii). Case study research with its emphasis on context is particularly appropriate for exploring wicked problems because every wicked problem is “uniquely grounded in time and space” (Brown 2010a:109).
The chosen case study provides a unique opportunity to understand the overarching focus of this research—whether unspeakable policy problems impact on policy making processes and, if so, how?—because the research site chosen represents a critical case which Flyvbjerg (2001:78) describes as “having strategic importance in relation to the general problem”. With its focus on the regulation of excrement, the chosen case provides a unique opportunity to concentrate on the unspeakable in policy making. My interest in this excremental research site was triggered in part because in Western society “[d]irt rarely enters the political area so obviously, and takes up such a central role both as a disputed symbolic domain and as a means of dispute” (Hadolt 1999:194).

This research follows a tradition of researchers using single case studies to consider policy making on sewage related issues. Key Australian examples include the work of Sharon Beder (1989a,b), Jennifer Lewis (1995) and Anna Hurlimann (2006). In support of a single case study approach Flyvbjerg (2001:72 & 82) contends they are not inferior to multiple case studies because they provide the opportunity to clarify the causes of a problem and its consequences rather than simply describing and comparing its symptoms and how often they occur.

Because a case study clearly has a history and a future, Yin (2004:251) notes that defining an appropriate end point can be challenging. This case study focuses on the introduction of the Marine Pollution Bill into the Queensland parliament in 1994 to manage sewage discharges from vessels and a subsequent review process which resulted in significant changes to the regulatory regime adopted by that state. Recognising that “issues of policy debate do not die once a piece of legislation has been passed: they survive and resurface in subsequent debates, as well as in implementation actions” (Yanow 2000:10), the implementation of compliance activities, including enforcement and education, relating to the revised legislative position are also considered.

**Selecting the case study site**

Queensland was chosen as the case study site for this research due to the comprehensiveness of its regulatory approach to managing ship-sourced sewage discharges (Tyler 2009) and the significant volume of public comment generated in relation to the development and implementation of this regulatory approach over a
seventeen year period between 1994 and 2010. Because this occurred against a backdrop of significant recreational boater opposition, the case study selected presented a good source of discursive data (Phillips & Hardy 2002:71) and offered a rich corpus for analysis including submissions, government position papers, multiple changes to legislation and associated documentation such as media reports and Hansard transcripts. Because the case study was typified by a high degree of conflict and “an obvious discursive struggle” (Phillips & Hardy 2002:67) it also yielded the potential to reveal insight into discursive activity linked to ways in which individual actors sought to protect and advance their interests in the policy process and to map the impact of the unspeakable on the policy process, participation and outcomes.

**Understanding the case study**

The case study is understood by broadly applying Yanow’s (2000) approach to interpretive policy analysis to the research questions. Interviews and document analysis are common methods of data collection, analysis and interpretation for case study research (Sarantakos 1998:195) and for interpretive policy analysis specifically (Yanow 2000:31). While issues of researcher bias are often raised in criticism of case study research, particularly those employing a single case, Flyvbjerg (2006:235) suggests that such criticisms could be applied to all research methods. In order to ensure a rigorous research approach I employed a data collection strategy based on intra-method triangulation (Sarantakos 1998:168) using a variety of source materials including interviews with key policy officers, media reports, public submissions, and key policy making texts and consultation records. This approach to data triangulation (de Laine 1997:49) also allowed me to calibrate my data and findings against the media and reports of other Australian policy processes concerning the management of ship-sourced sewage which were conducted over the same general period.

This research, by virtue of its focus on the unspeakable, can be broadly understood as research on a sensitive topic. In his seminal text, *Doing research of sensitive topics*, Lee (1993) defines sensitive topics are those associated with taboo topics and those laden with emotion. However, he also notes that this definition should be broadened to include those matters that have the potential to pose some kind of threat to those involved in the research as either an intrusive threat, threat of sanction or a political threat. Intrusive
threats deal with areas which could be considered private, stressful or sacred. Threat of sanction relates to the study of deviance and social control and involves the possibility that information revealed may be either potentially stigmatising or incriminating. Political threats include topics which are controversial or involve social conflict. Based on this broad understanding the case study considered in this thesis could be considered sensitive because it involved a taboo subject matter, was politically sensitive for the policy officers involved and the governments of the times, and involved significant social conflict. However, despite these issues studies of sensitive topics are important because they address “some of society’s most pressing social issues and policy questions” (Sieber & Stanley 1988:55 in Lee 1993:2) and “challenge taken-for-granted ways of seeing the world” (Lee 1993:2).

Due to the sensitive nature of this research a number of considerations regarding research design and conduct arose relating to issues of preserving confidentiality and accessing the consulting organisation. Access can be problematic when researching sensitive issues (Lee 1993:2) and “inevitably involves compromise in terms of what can be done, where and when” (Horwood & Moon 2003:108). Accessing the research setting necessarily means looking beyond just the needs of the researcher and the research subjects, although they are important, to also considering the needs of implicated bodies (Horwood & Moon 2003). In part this is because interviews can be intrusive and have the potential to change people’s behaviour or the outcomes of a situation (Myers & Newman 2007:5).

Because the policy process was still underway during the conduct of this research and the legislation and regulation were yet to be given royal assent Maritime Safety Queensland requested that individuals and organisations who made submissions not be contacted for interview. I elected not to interview other recreational boaters or recreational boating organisations due to the potential for such an approach to further antagonise already tense relations between these stakeholders and the department.

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1 This research was conducted in accordance with the research protocol approved by the Griffith University Human Research Ethics Committee [Reference Number ENV/11/07/HREC]. The research protocol developed for this research adhered to the ethical principles of autonomy, non-maleficence, and beneficence (Durrheim & Wassenaar 2002:68). Ethics approval and interview consent materials are provided in Appendix 1. Although participants were offered the freedom to withdraw without penalty no participants withdrew their consent and no complaints or concerns were received regarding the conduct of the research.
responsible for developing and implementing the vessel-sourced sewage policy. Furthermore, I was able to access the views of recreational boaters and related organisations through their formal submissions to the policy process, media articles and club newsletters. Consequently, predominantly retrospective interviews were conducted and pre-existing data sets were used to preserve confidentiality (Lee 1993), anonymity (Sarantakos 1998) and to manage the potential impacts of the sensitive nature of the research.

Figure 2.1 shows how the data collected was used to construct the case study and analysed to answer my research questions. Each of these key elements—case study and context; data collection; and critical discourse and policy analysis—are discussed in detail in the remainder of this chapter.

Figure 2.1: Schema of data collection and analysis
Constructing the case study and context through interviews and archival data

I commenced this research by mapping the policy process through archival research and reference to key policy and consultation documents and media accounts. Supporting information was obtained through interviews and interactions with key public servants to support this reconstructive work and ensure its accuracy (figure 2.2).

The archival and extra-textual accounts provided by the public servant interview participants contributed and provided context to the research in three primary ways. Firstly, they were used to confirm the policy process chronology and to identify key texts, stakeholders and turning points in the policy development process. Secondly, their account of the policy process and unspeakable policy problem provided data on the competing ways in which the policy problem was framed and the implications of this, particularly in terms of identifying the various strategies used to acquire legitimacy and externalise responsibility. Finally, these interactions provided an account of an insider’s interpretation of the policy process and provided an opening to begin to consider the specific role, meaning and impact of the unspeakable in the policy process from the perspective of those with a sustained and intimate involvement.

Recruiting participants

Interview participants were chosen through a process of purposeful selection (Maxwell 2005:88) which saw the public servant participants as professional informants (Lee 1993) who could provide information and insights that could not be as easily accessed through other sources by virtue of the “servicing or control functions” they performed as part of...
the policy making and implementation process (Lee 1993:73) and their routine interaction with and observation of the case as it unfolded. However, in government policy making processes, the identity of public servants involved in policy making is often not made public unless they perform a visible consultation or executive decision making role. One reason for this is that the policy process relies in part on the anonymity of the machine of public servants whose work is “driven by the policy priorities of the government of day” (Bridgman & Davis 2004:11). While the virtual facelessness of the bureaucracy can make the identification of public servant participants in the policy process problematic, getting a relatively complete list of interview participants can be assisted by situations where there is a relatively small number of potential interview participants and the likely prior existence of an already organised professional referral network (Lee 1993:66). In these instances where the study group is small, hidden or elusive, network sampling is often used (Lee 1993:65).

In this research, potential interview participants were recruited using network or snowball sampling, starting with the officer responsible for implementing the sewage provisions of the Transport Operations (Marine Pollution) Act 1995 [TOMPA] at the time of the first interview. This officer was asked to identify any current and previous officers who were involved in the development and implementation of policy regarding ship-sourced sewage. File notes on official records also assisted in confirming completeness of contact lists. Contact with past policy officers no longer with Maritime Safety Queensland was facilitated by use of the online Queensland Government contact directory or through existing informal networks.

Phone or personal contact was made with potential interview participants to confirm their prior involvement in the policy process under study. Once identity was established, a brief description of the research was provided and an invitation to be interviewed as part of the research extended. Prior to the interview each interview participant was provided an information sheet clarifying the aims of the research, issues to be discussed, what participation involved, and participant’s rights in the research including confirming that participation was entirely voluntary and that anonymity would be preserved. This

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2 An example of a ‘visible’ or coal-face consultation role would be officers involved in the running of public workshops or meetings. An example of an executive decision making role would be the General Manager of a government agency or the Director-General of a government department.
information was followed-up with a phone call or email to confirm the interview time and location and to offer the opportunity to raise any questions or concerns prior to the interview. Interviews were conducted in an office location convenient to the participant and participants were advised that although Maritime Safety Queensland had approved their participation in the research they should not feel compelled to participate or to represent the agency’s interests as either a current or former employee. Instead interview participants were asked to speak from their own personal perspective.

**Conducting the interviews**

Six interviews were conducted. While all of the interview participants were still employed by the State Government, only one was employed in a role directly related to the case study at the time of the interviews. Given the extended timeframe under study and the relative mobility of public servants it was not possible to interview all officers involved in the policy process. However, in order to manage any potential gaps in information, the interviews were supplemented by the analysis of two videos prepared by Queensland Transport regarding the case study which featured interviews with officers involved in the policy making process (QDMRT 1998,1999).

The interviews were semi-structured (Sarantakos 1998:27) and conversational in nature (Yanow 2000:31) to ensure that key issues were covered but that sufficient flexibility was provided for interview participants to respond in an open manner and to provide details they considered relevant and important to understanding the different aspects of the case study and what happened. Interview participants were asked to talk about all aspects of the policy process, including consultation processes; drafting, review and amendment of the *Transport Operations (Marine Pollution) Act 1995* and associated Regulation; and implementation and enforcement of the sewage provisions. This included talking about:

- the period of time they were involved in the policy process and their role;
- the consultation methods and other policy processes employed during the stage of the policy process they were involved in and their assessment of them;
- the key policy and consultation texts prepared and distributed during this time and their purpose;
• the key types of stakeholders involved, their participation in the policy process, the key concerns they advanced and any strategies they adopted to advance these concerns; and
• their general views about the policy making process adopted and the impact, if any, of the policy problem on it.

The interview process was aided by the use of a diagram I had constructed of the policy process which highlighted key consultation and policy events based on archival data (figure 2.3). Interview participants were asked to indicate when they had been involved using the diagram as a guide. The use of the diagram as a heuristic device provided a loose structure for the interview, helped to generate discussion and acted as a tool to jog their memory. Interviewees were also invited to indicate any errors in the chronology, include additional key events and to comment on any phase of the process illustrated. Key consultation documents were also brought to the interview to assist this process.

Figure 2.3: A figure to inform the interviews
It was recognised that presenting a sensitive research topic to interview participants can be problematic. For example, if the interview topic is described too tightly at the outset it may inhibit respondents from defining it in their own way or may preclude them from raising other issues. Following Lee (1993:102-3) I adopted an interview approach which allowed the topic of the research to emerge gradually over the course of the interview.

As an active participant in the interviews, it was important that my input not pre-empt participants’ perceptions of the impact of the unspeakable on policy making. In his work on contextual meaning in policy discourse, Swaffield (1998) found that explicit references to the object under study as a focus of particular interest in interviews pre-structured the meaning and importance assigned to it by policy actors. To avoid this, he advocates using a blind approach which ostensibly seeks actor’s views on the substantive policy issue under consideration rather than the object of interest. When conducting my interviews, no reference was made to my specific interest in the impact/importance of the unspeakable in policy processes until a late stage in the interview, when I asked questions relating to their perceptions of the impact, if any, of the policy problem on the policy making process adopted and on participation in the process and policy outcomes. At this time I made my interest in the unspeakable policy problem clear and ensured that participants understood that they had “permission to speak of the unspeakable” (Howarth 1998:3).

Locating the observer: a comment on insider status

As a practising public servant with more than 16 years in the state public service I have undertaken roles across the policy cycle (Althaus, Bridgman & Davis 2007) including designing and delivering consultation, developing policy positions and finalising and implementing policy approaches. My immediate (albeit early) involvement in the early stages of the legislative review and consultation process analysed, however, makes it in some respects a real-life account of policy making in action, as this position afforded me a more intimate view of the policy making and consultation process than I could have obtained from any other perspective. As a result this research was conducted in part from an insider’s perspective by someone simultaneously engaged in and reflecting on policy language and practice. This distinguishes both this research and my position as a researcher who commences the research with a “diffuse sense of what the question is
and of what the issues are” from more traditional research in which the researcher “chooses a research question without prior experiential or conceptual knowledge of the policy issue that the practitioner brings with [her]” (Yanow 2000:86).

Most researchers argue that insider status, either implicitly or explicitly, advantages the researcher. These advantages include greater access to interview sites, individuals and critical information (Labaree 2002:103). It has also been argued that this positionality can significantly reduce the need for preliminary negotiation that an outsider must conduct to gain access to key informants (Labaree 2002:104). In my case, it was clear that my personal relationships, professional reputation and public sector exposure provided me with access to information, texts and individuals that might otherwise have been unavailable.

Similarly, the value of cultural interpretation, shared experiences and a consequent deeper understanding and clarity of thought for the researcher are often identified as key strengths of an insider perspective (Labaree 2002:103). This view is based on the belief that the tacit knowledge gained by being an insider can produce a different knowledge to that available to the outsider (Griffith 1998:362) and can inform a deeper understanding and knowledge of the experiences of those being researched (Labaree 2002:105). For example, discourses around shared experience can be significant in the construction of the researcher’s identity (and being perceived) as unthreatening and therefore allowed access to informants and documents (Mertkan-Ozünli 2007:452). It has been further argued that the insider status of researchers coupled with an open and reciprocal relationship with participants, including researcher disclosure, can lead to an increased commitment by research participants to participate and disclose and can provide better data about people’s experiences and feelings (Platzer & James 1997:630).

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3 Rose (1997:307-308) notes that “Feminists of many kinds have elaborated their own role in the complex relations of power by exploring their ‘position’, and frequently ascribe the politics of knowledge production to a geography of ‘positionality’. Facets of the self—institutional privilege, for example, as well as aspects of social identity—are articulated as ‘positions’ in a multidimensional geography of power relations”.

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The boundaries of insiderness are situational and in many respects defined by the perceptions of those being researched (Labaree 2002:101). As a result, the importance of creating “shared positional space… where the situated knowledge of both parties in the interview encounter, engender a level of trust and cooperation” (Mullings 1999:340) cannot be underestimated. How an individual represents themselves and specific elements of their identity can make the difference between being granted an interview or not, or between being able to access valuable insights during interviews or not. The determination of insider status is complex and cannot simply be reduced to insider/outsider based on visible attributes such as race, gender, ethnicity or class (Mullings 1999). Instead, insiderness may be judged on a number of factors including on the basis of professional status and work identity, although these are less well explored in the literature than those relating to insiderness based on gender, race and ethnicity (Labaree 2002:118).

Positioning myself as a practicing public servant was important in this regard. My insider status served me well during the conduct of interviews in terms of understanding the context and jargon used, forming relationships, and encouraging participants to discuss the unspeakable. However, while the distinct advantages afforded by virtue of my insider status were obvious particularly in relation to accessing and understanding the case, these advantages are were not absolute. Like Platzer and James (1997:630) I found that having gained access “partly by virtue of [my] own identit[y]”, I was faced with ethical and methodological issues about how much my own identity influenced the research, which also raised issues relating to positioning, disclosure, shared relationships and disengagement that needed to be considered (Labaree 2002:97).

While insider status can minimise many of the problems associated with sensitive research including access, rapport with participants, ethical concerns and “stigma contagion” it can also open claims of research bias (Platzer & James 1997:626). What these criticisms fail to recognise is that researchers are part of the language practices they study (Rogers 2004:249) and that “[a]nalysis are not above the practice they analyse: they are inside it” (Fairclough 1992:199) whether they are embedded in the organisation or process that they are studying or simply within their own decision making and judgement. This idea is well expressed by Griffith who notes:
The researcher is always located somewhere. Her knowledge is situated in particular sets of social relations. But that is the beginning of the research story and not the end. She begins her research from inside her knowledge…and from the access and knowledge provided to her by her biography…At the beginning of the research process, insider knowledge of social groups is invaluable, bringing and authenticity to the research that is almost impossible to reach from the outside. However, a theory of knowledge grounded inside social boundaries is not simply sufficient (Griffith 1998:374-375).

Rather than seeing this as a potential deficit of my research, as a practicing public servant, I see this as a strength because as Dorothy Smith noted in a recent interview “you can discover a great deal about the social as you discover your own practices, from the inside” (Widerberg 2004:180).

**Translating insider status to interview method**

As a public servant and PhD scholar, when conducting this research I became acutely aware of the liminal space I was occupying “caught between practices, cultures, frames for knowing the world, and modes of communication—between, for instance, the divine and secular, university and workplace, private and public, linguistic and non-linguistic” (Whalen 2004:1). My position in this “interstitial place…of in-between” (Whalen 2004:1) was most evident and problematic in the interviewing phase of my data collection as I worked in the same organisation as some of the public servants I had interviewed. I recognised that impartiality in the interview process:

…is not a search for the sort of distance that is viewed as a sign of objectivity, it is instead a desire to create a space during interviews that allows interviewees to share information freely (Mullings 1999:340).

To resolve this tension I provided these policy officers with tacit permission to approach me in the workplace to offer further insights, contacts and information following the formal interview process. This information was used to supplement the interviews.

The interview is a social interaction (Myers & Newman 2007:11) in which the interviewer must develop trust and collegiality with the interviewed (Sarantakos 1998:256). Qualitative research on sensitive topics, in particular, creates a space for researcher self-disclosure as an interview strategy to enhance rapport, show respect for
participants and validate participants’ stories that might not be as appropriate in other types of research. This self-disclosure can help those being interviewed to feel that the researcher understands the participant’s experiences (Dickson-Swift et al 2006:857). As a result, acknowledging my insider status was unavoidable because many of those I needed to interview knew that I was a public servant and many were aware that I had had some involvement in the early stages of the review. Consequently, I took on the hybrid role of a public servant and researcher which allowed me to demonstrate that I understood the language and the context they operate within, and also to gain their trust in interviews because I am ostensibly one of them. However, it also meant that I couldn’t avoid my role as public servant becoming part of the interview. Because of this I made a conscious choice to make it part of the interview using an interviewing model which sees the interview as a drama in which both the interviewer and the interviewed play a part. The dramaturgical model of interviewing proposed by Berg, and adopted in this research, allowed me to both display my own feelings during the interview process and to elicit those of the interviewee (Berg 2007:91).

**Documenting the interviews for analysis**

With the consent of interview participants, interviews were recorded for transcription and analysis. The interviews were transcribed verbatim and detailed notes were taken during the interviews. Following Dickson-Swift et al (2007:337) I undertook my own transcription as the process of transcription is more than a purely technical task involving the transformation of the spoken interview into written data but instead an important first step in data analysis.

Interview participants were offered the opportunity to comment on the content of the transcription and notes of their interview and to provide written comment to identify information they would prefer was not revealed, correct and clarify facts or points of information and suggest an alternative interpretation (Platzer & James 1997:631). Participants were also offered the opportunity to nominate to either review a copy of the draft thesis, receive a copy of the final thesis or both.
The interviews were also complemented by ad hoc interactions with officers to follow up on questions and issues raised in the data analysis process, particularly when sourcing and reviewing key texts. These informal interactions provided a wealth of information and insight as some of the officers no longer felt they were being interrogated and felt more at ease providing comment or opinion at this time than they had sometimes been in the interview. Some also used this opportunity to check if someone else had told me something. This desire to share information, but only after another was given the opportunity to raise it first, was expressed by one participant:

*I was going to tell you about [topic] before but I thought that I should let [policy officer 3] talk about it first since it really was their part of ship and happened under their watch* (Policy Officer 1)

I recorded these interactions in note form at either the time of the discussion or immediately following it by “jotting short notes or distinctive phrases” (Yanow 2000:32).

**Data collection: using key texts to understand the case study**

The use of textual data is a means of “accessing the real-time, unfolding features of…events in a way that minimizes the use of retrospective data” (Gephart 1993:1466) and a recasting of history. This real-time data describes stakeholders unfolding understanding of events. While the collation of these documentary materials is often seen as an unobtrusive data collection strategy (Berg 2007:239) because it does not impact on the respondent who authored the text under analysis (Sarantakos 1998:186), the texts collected should not be seen as presenting unproblematic truths. Instead it should be recognised that:

Documents are ‘social facts’, in that they are produced, shared and used in socially organised ways…and construct particular kinds of representations using their own conventions (Atkinson & Coffe 2004:58).

Consequently, documentary materials should be regarded as important data in their own right, not just “playing second fiddle” to interview data and researchers should “approach documents for what they are and what they are used to accomplish” (Atkinson & Coffe 2004:58). This involves considering their place in organisational settings, the cultural value attached to them, and their distinctive types and forms.
In terms of the development of the case study, the collation and review of naturally occurring retrospective and archival data (Gephart 1993:1468) was used to:

- document the policy making process and identify key actors and turning points in the policy development process;
- complement the accounts of the policy process provided during the interviews with key policy makers involved in the policy process; and
- provide texts for analysis to identify the ways the unspeakable was treated in and its potential impact on the policy process, participation and outcomes.

Three distinct types of contemporary and retrospective texts (Sarantakos 1998:275) were collated and reviewed in this research: Government texts, formally solicited public submissions and unsolicited public comment. These different types of texts were used to: reduce possible sources of error; account for any missing datasets; provide different views of the policy problem and policy process; and calibrate findings.

The official line: identifying and accessing Government texts

Scrutinising government texts such as policy documents is important because “organisations and policy decisions are dependent on ‘writing’ in order to regulate and legitimise their functions” (Jacobs 1999:204). I define government texts as those for which the State Government of Queensland is identified as the author, either implicitly as in the case of legislation or explicitly as in the case of ministerial media releases and policy position papers. Government policy documents and records were accessed from the Maritime Safety Queensland archives. These policy documents included position papers, regulatory impact statements, brochures, bills, legislation, maps, websites, posters and ministerial media releases. Other public documents making reference to the policy making process such as Hansard transcripts, consultation records and the Maritime Safety Queensland industry publication Seascape were also collected and reviewed. Internal documents not intended for public release such as consultation strategies, training videos and unreleased promotional concepts were also reviewed.

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4 A detailed list of data sources across these categories is provided in Appendix 2.
Participating inside the processes: identifying and accessing solicited submissions

The second type of texts collated and reviewed was those generated by members of the public inside the formal policy review and consultation processes. The most common form of public participation in policy making is through the preparation of written submissions (Maddison & Denniss 2009:213). These solicited submissions comprised comments provided by recreational boat owners and others in response to calls for comment from the government as part of formal consultation processes. These comments were provided in the form of responses to a detailed questionnaire and shorter surveys, the completion of structured response forms or the preparation of freeform written submissions. Maritime Safety Queensland approved access to all of these submissions and consultation records. However, due to the large number of formal submissions received over the study period, in order to manage the corpus I focused on the recreational boating related submissions and policy documents. I did not analyse submissions which made no specific reference to recreational boating issues.

Participating outside the process: identifying and accessing unsolicited comment

The final type of text used was unsolicited comment and self-justifying literature (Lee 1993:73) including media reports and club newsletters. This public comment was independently generated and often circulated outside the formal consultation processes. I accessed articles and letters to the editor from popular recreational boating and sailing publications including the Cruising Helmsman, Australian Sailing and the Boating Industry Association of Queensland Newsletter Ship to Shore. Special attention was given to the boating section of the Queensland-based News Limited newspapers The Sunday Mail and The Courier-Mail and the Queensland sailing publications The Coastal Passage and Go Boating as a result of their sustained editorial comment and readers’ regular contributions.

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5 It is accepted practice for government agencies to share the content of submissions used to review policy positions with other stakeholders in either a summarised or verbatim form to provide transparency to the consultation process. Those providing submissions to the policy process under study were asked to identify any confidential elements of their submission so that they could be removed prior to collation and broader distribution. All individual identifying data was removed from individual submissions prior to analysis (Berg 2007:247). Any commercial-in-confidence information was removed from submissions prior to release to the researcher. Information provided within submissions which categorised the respondent according to broad categories of interest was retained e.g. as recreational boat owner; boating and yacht club/association; marine industry; environmental group; commercial boat owner; commercial boat operator; marina/boat harbour manager; community group; interested person; government and other.
regarding the Queensland government’s attempts to regulate the discharge of sewage from ships.

In contrast to the treatment given to formal submissions within this research, comments made in the popular press and other publicly accessible data sources such as club newsletters have been directly attributed to the individual or organisation making those statements on the assumption that consent is implied as they have published these opinions in a public manner. An example of this is the commentary on the process provided by a number of boat owners in *The Coastal Passage*.

**Thesis style conventions**

Within the body of this thesis I use large extracts from original policy texts and submissions, rather than paraphrasing, to preserve and highlight the texture and tensions in voice and discourse. As a general rule, I have reserved the use of italics to highlight quotes from the case study data. Within the case study discussion, where a quote has been taken from a public submission, government document or other media such as a newspaper article directly related to the case study it is presented in *italics* or as *indented italics* for longer quotes. Submissions have been allocated a submission number which is used to reference quotes along with the year of submission, for example, S26-1989 would refer to submission 26 made in 1998. A similar convention is used for ministerial correspondence in which the S is substituted for an M. Public comments made in the media or newsletters are attributed directly and included in the reference list.

Any errors/anomalies in orthography (e.g. spelling, punctuation, hyphenation, and capitalisation), grammar or terminology within quoted materials have been reproduced to appear as in the original source. It is common for authors to insert *[sic]* into quoted materials to indicate accuracy in reproducing the text despite appearances to the reader of an incorrect or unusual orthography or grammar. Its purpose is to inform readers that any errors or apparent errors in the copied material are not from transcription and when no apparent orthographic or grammatical irregularities are apparent [sic] can also be used to indicate an error in fact or logic. I have avoided the use of [sic] in the transcription of submissions and other public comment (such as in recreational boating club newsletters and correspondence) and recreational boating publications because its use can also be
perceived as an appeal to ridicule, because it highlights irregularities, draws attention to the original writer’s mistakes and can subtly discredit a quoted statement.

**Taking a critical realist approach to understanding sewage regulation**

I do not seek to judge the adequacy of either the consultative or legislative approach adopted in the case study, nor do I seek to either establish or refute the materiality of marine pollution as a result of the discharge of ship-sourced sewage because:

> Judging when a statute has failed can be a difficult matter. When the statute sets out to regulate a high profile risk the evaluative challenge may be especially severe—not least because the political factors intrude and different groupings or institutions may perceive issues quite differently (Hood, Baldwin & Rothstein 2000:282).

Maintaining a neutral position on the extent of the potential ecological or public health impacts of sewage discharges is advantageous because it allows me to accept the recreational boaters’ and other stakeholders’ reality for analysis. It also recognises that, while there may be certain scientific or environmental facts about pollution caused by sewage discharges, depending on the values held by an individual a different set of ‘facts’ becomes relevant to their decision making. This is because social influences shape what counts as scientific knowledge (Taylor & Buttel 1991:406), since our understandings of the world are socially mediated. A reverse process also takes place, whereby these facts in turn determine how appropriate a set of values (often not one’s own) are in the policy debate about these matters (White 1994:513). This is due to seemingly environmentally focussed legislation inevitably also reflecting moral, cultural and political reasons for the regulation (Sagoff 1988 in White 1994:513). Newton, Deetz and Reed (2011:11) argue that “it is only through analysing this polyvocal landscape that socially and politically sensitive accounts are likely to be produced”.

In taking a broadly critical realist position (Faireclough, Sayer & Jessop 2004), I accept that environmental problems possess both transitive and intransitive aspects. The transitive aspects are those that are conceptually or socially constructed and change as scientific theories and other social ideas change. The intransitive aspects by contrast are the non-social objects that the transitive aspects aim to capture, and which act and exist independently of our knowledge of them. Bickerstaff and Walker (2003:46) take a similar
position to understanding air pollution, arguing that the ways that people make sense of pollution is socially mediated, accepting that “air pollution has an ontologically objective existence, but that the conception and classification of it are socially contingent” and therefore important for policy making.

I argue in line with Newton, Deetz and Reed (2011:22) that responses to environmental issues:

…are not only about the veracity of knowledge about the world and its consequences for policy. It is also about feelings, identities, and concepts of justice. Frequently the conflict appears to be over knowledge, but…[it] is what people think they should be fighting about or what they know how to fight about, but the disagreement that fosters the conflict is different and remains unarticulated…The trick is to keep these conflicts productive, aiding more creative and customized responses that gain more commitment and compliance.

A weak social constructionist or critical realist\(^6\) view of policy making recognises that although many policy problems have a real ontological status and material reality, they require social construction to be noticed and acted on. As Hajer (2006:66) so succinctly puts it “The point…is not that dead trees as such is a social construct—it is how one makes sense of dead trees”. As a result, policy making can be conceived as the product of “a dynamic social process of definition, negotiation and legitimation” (Hannigan 2006:31). Hajer’s observation demonstrates the importance of recognising and reconciling different meanings in policy making. Such an approach highlights the importance of discourse in framing issues and determining potential policy problems, almost in spite of any material or physical basis they may have.

Using this epistemological framework, policy making can be characterised as a “problematising activity” in which social or environmental phenomena are “named, framed and explained” as part of the policy process (Maddison & Denniss 2009:133). However, it is also important to understand from where these meanings come. Fillmore (1985:121) provides an apposite example for this case study in considering the difference between coast and shore, ostensibly the same piece of land but viewed very differently.

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\(^6\) I tend not to distinguish between the two in any strict sense within this thesis for as Andrew Sayer (1997:466) states: “realists can happily accept weak social constructionism”.

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depending on the way that it is viewed and the position of the viewer. For example, the shore is understood as the boundary between land and water from the perspective of recreational boaters on the water, while the coast is understood as the boundary between land and water from the perspective of someone on the land. It is identifying and interrogating these different meanings or understandings that are at the heart of interpretive policy analysis. Consequently, this research is not about whether or not, or to what extent, sewage from recreational boats poses an environmental, public health, aesthetic or other threat. Instead it is about understanding how opposition to and support for its regulation arises and the ways that various participants in the policy process come to know and make sense of issues like sewage discharges from boats first as a policy problem to be managed and in what sense.

An interpretive approach to policy analysis

Policy decisions constitute a setting where different groups compete to establish a particular version of reality in order to pursue their objectives. I am not suggesting there is no material reality of marine pollution, rather, as Jacobs (1999:203) suggests:

> It is our understandings of these material realities that are constructed discursively. Language is therefore not just a representation of an underlying reality but a vital component of how we conceptualise the world. [emphasis in original]

Yanow (2000:14) proposes an interpretive approach to policy analysis which “focuses 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”. Broadly correlating with a discourse analysis approach, she proposes that meanings (which she defines as encompassing values, beliefs and feelings) are embedded in policy artefacts (such as language, objects and acts) in representative relationships. The use of specific artefacts has the potential to either maintain or change their underlying meaning, however, as shown in figure 2.4, each policy artefact can also accommodate multiple meanings for different actors and parties (Yanow 2000:21). This is particularly true for wicked problems which require an understanding that “there are multiple views of how the world works and diverse ways of constructing new knowledge” (Brown et al 2010:6). Wicked problems by their very nature rest on underlying paradoxes or “self-contradictory statements in which both propositions are true” (Brown 2010a:63).
Yanow suggests that there are five main steps in interpretive policy analysis (figure 2.5). The first two steps involve identifying policy artefacts that are significant carriers of meanings and the communities for whom this meaning is shared. Based on these, key discourses (the specific meanings being communicated through specific artefacts) and their entailments (in thought, speech and act), key points of conflict and their conceptual sources can be identified. While Yanow notes that the research could stop here she suggests that the final step is where intervention can begin or, to borrow from a different tradition, where the research can become critical because it is in this final step that the implications of different discourses can begin to be understood and ways of bridging these differences explored. However, as I will argue in this thesis, if there are significant psychosocial obstacles and verbal proscriptions that prevent issues from being discussed, this becomes problematic because you cannot bridge differences in meaning unless they can be, and are, expressed.

**Figure 2.4:** Relationship between policy artefacts and meaning(s) (adapted from Yanow 2000:16 & 21)

**Figure 2.5** Steps in interpretive policy analysis
A discursive approach to policy analysis

Wicked problems often generate heated controversy (Wexler 2009:534) and these debates are often simplified into competing stories which emphasise different aspects of the problem. Each story tends to define itself in contradistinction to competing policy stories and solutions. Consequently, the stories’ proponents are unlikely to agree on the fundamental causes of and solutions to the problem, leaving “the policy maker with a dynamic, plural and argumentative system of policy definition” (APSC 2007:5). However, the discursive character and construction of policy issues, problems and solutions may be invisible to us unless we pay specific analytic attention to these processes and their impacts (Maddison & Denniss 2009:130).

Discourse analysis is a useful tool for understanding what goes on in policy making and for “analysing the production, reception and strategic deployment of…texts, images and ideas (Hannigan 2006:36). A discursive approach to policy analysis can help to uncover how the use of language is connected to broader processes and practices and reveal how discourse is implicated the construction of credible knowledges, problems and solutions in policy making (Hastings 1998). Discourse analysis is interested in how language is used in discursive events and focuses on issues such as why particular vocabulary or rhetorical strategies are deployed, how these are interpreted and what is accomplished through these strategies. It also looks to situate this use of language within a social setting or context and how it interacts with that context (Hastings 1999a:9).

As shown in figure 2.6, Fairclough (1992) provides a model to undertake discourse analysis which encompasses textual analysis, discursive practices and social practices. Each dimension of analysis is not conducted in isolation, nor are they conducted in a specific linear process that moves from text identification to description to interpretation before arriving at explanation. Instead, what actually occurs is more of a cyclical process in which the dimensions of analysis occur somewhat simultaneously and which involves deeper analysis of each dimension at each pass and concludes only when the research objectives have been achieved. Because texts are treated as realisations of discursive practices, as moments of social practice more generally, text, discourse and social practices cannot be analysed as discrete things; text and context co-construct (or construe) each other.
Identification: Identifying texts and policy artefacts

The first dimension of the analysis is concerned with identifying key texts. This dimension of analysis roughly corresponds with the first stage of Yanow’s (2000:30) interpretive policy analysis approach which involves identifying the policy artefacts (language, objects, acts) that are perceived as significant carriers of meaning for a given policy issue. This stage involves identifying and collating the range of possible texts and policy artefacts and narrowing these down to a more manageable corpus for further analysis. Following an initial review of available texts, I restricted analysis to texts relating to recreational vessel discharges because recreational boaters, both as a group and individually, provided the greatest number of formal submissions and unsolicited public comment (such as media releases and recreational boating club newsletter stories) regarding the sewage proposals.\footnote{I also note that although different forms of boating may involve shared actors, sites and equipment different forms of boating are distinct practices (Laurier 1999:197), as a set of policy actors, recreational boaters have their own subculture with its own mores, language, and avenues for access (Jennings 2007a:30).} Comments about recreational boater sewage discharges were also disproportionately featured in the media coverage and parliamentary debate compared with discharges from larger commercial vessels and ocean going ships.
Description: Describing texts and identifying discourses

The second dimension of the analysis is concerned with describing the text and conducting a close analysis of the formal features of the text—analysing what was said and how. This textual dimension of analysis considers the linguistic features of the texts being analysed including aspects such as vocabulary and 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. It also considers the relational aspects of the language features to describe how choices reveal social relations and position subjects. Finally, it describes the expressive values found in the text to describe the emerging social identities or subject positions. This second dimension of analysis roughly corresponds with the second and third step of Yanow’s (2000:31) interpretive policy analysis approach which involves identifying “communities of meaning”—that is to say groups of people who share a view (or partial view) of the policy issue, that create or interpret these artefacts and meanings and through which these views are expressed—and mapping the architecture of similarities in differences of meaning with respect to the policy issues. These materialise or manifest themselves in the way(s) that each group talks about the issue, both within the group and to others, and their actions with respect to it. In this step, the specific meanings being communicated through specific artefacts and their entailments (in thought, speech and act) are identified. This analysis considers meanings (values, feelings and beliefs) that are important to various communities of meaning, and extends this analysis to policy artefacts or the language, objects and acts in which they are embedded and which represent them in a symbolic fashion.

Interpretation: Interpreting discourses and identifying rhetorical effect

The third dimension of the analysis aims to reveal what the text means in terms of the discourses that exist within the text and what they, in turn, mean. This focus on discursive practice considers issues of context, including processes of text production, distribution and consumption. This stage of analysis points out that the text is produced and interpreted in a situated context which determines what discourses and genres are drawn upon (Fairclough 1992). The situational aspects of discourse analysis in this dimension involves a detailed description of the circumstances in which the discourse was produced and the characteristics of the subjects that produced it. The contextual
aspects of the discourse analysis consider the discursive strategies adopted by these subjects and their rhetorical effect. This penultimate dimension of analysis roughly corresponds with the fourth step of Yanow’s (2000:20) interpretive policy analysis approach. This involves the identification of meanings that are points of conflict, their conceptual sources (affective, cognitive and/or moral) that reflect different interpretations by different communities and the implications for action of specific discourses.

**Explanation: Explaining discourses and identifying their implications**

Because policy making:

...often involves rival groups in a contest to shape the way in which issues are framed...it is important here to recognise that policy issues do not exist independently of the policy debate which surrounds them (Ward & Stewart 2010:286).

My analysis could stop at the stage of identifying discourses within their local context but because wicked policy problems and their unspeakable offspring are inextricably linked to a larger social and political world, they cannot be studied in isolation of their broader socio-cultural context (Wallack 1984:474). This focus on socio-cultural context considers issues of power relations, and the broader political and ideological context in which policy discourses take place and asks why is it this way?. This dimension of analysis considers discourse as a social practice and explains how discursive events not only reflect social realities, but also, in turn, influence and shape social structures (Fairclough & Wodak 1997). This final dimension of analysis roughly corresponds with the fourth step of Yanow’s (2000) interpretive policy analysis approach which shows the implications of different meanings which reflect different ways of seeing. These implications can include spatial, physical and material implications.

An important aspect of Yanow’s (2000:62) interpretive approach to policy analysis is its sensitivity to space and physical objects based on the understanding that:

Policy meanings are communicated and interpreted not just through policy and implementing agency language, but also through objects—physical artifacts—initiated or modified by policy language and/or by agencies as they enact that language.
Yanow (2000:63) stresses that spatial analysis “can focus on one or both of the ways in which spaces communicate meanings: through their use and through their materials”, suggesting that in analysis space can be thought of “as a kind of nonverbal language, with a vocabulary and rhetoric of its own”. Hook (2001:538) underscores the importance of considering “the discursive effects of the material, and the material effects of the discursive”. This part of my analysis works to uncover “the materiality of discourse” (Murdoch 2004:51) and how specific discourses interact with and imagine concrete physical arrangements such as the toilet, the sewer, the holding tank, the marine sanitation device and sewage pump-out station. Given its critical orientation, this final stage also seeks to find ways of intervening in some form to bridge differences based on different meanings.

**Conclusion**

This chapter presented the data collection and policy and discourse analysis methods used to develop the case study. Interpretive policy research, such as advocated this thesis, seeks to provide “a deeper understanding of the motivations behind behaviours” (Maddison & Denniss 2009:228). The critical realist orientation of this research is appropriate because it asks important questions about who makes claims for the existence of certain environmental problems, who opposes them and who is seen to be responsible without denying their existence. An interpretive policy analysis approach combined with a critical discourse analysis framework allows me to situate the policy issues within relevant social and political contexts, highlight the ability of particular discourses to dominate and stifle debate, and demonstrate how certain policy actors employ rhetorical strategies to construct the problem, its solution and its seriousness (Hannigan 2006). However, it also underscores the importance of recognising the different perceptions or constructions/construals of reality within a policy development process that is the subject of this thesis. The objective of the research is not to determine who is right or wrong in this case study (as if this were possible). Instead, my focus is on identifying the social and policy consequences of different discursive representations of the unspeakable policy problem.
Before we can draw conclusions about the origins of environmental problems, we need historical accounts of the concrete interactions between society and nature that have produced them (Bird 1987:255). Building on Bašić’s (2001:137) observation that maritime sanitary practices and infrastructure cannot be viewed separately from the development of their terrestrial counterparts, the next chapter provides a socio-historic overview of the regulation of land-based sewage which presents the terrestrial regulation of sewage first in Chapter 3 as a wicked problem and then, building on this argument in the Chapter 4 as an unspeakable problem with peculiar implications for policy making.
CHAPTER THREE

Sewage regulation as a wicked problem or beyond?

Introduction

Historically, the regulation of land-based sewage discharges has ranged from ordinances prohibiting open defecation or dumping excrement in streets or other public places to rules governing the use, construction and maintenance of sewerage infrastructure such as cesspools and privies on private property, and the construction, organisation and administration of sanitation and sewer systems. In this chapter I will show how the development of these regulations was based on changing ideas about pollution, the environment, public health, and private and state responsibilities for these matters, among others. A corresponding set of prohibitions are now applied to sewage discharges from vessels, including laws prohibiting the dumping of sewage waste from vessels into defined waterways, rules governing the use, construction and maintenance of toilets and other sanitary appliances onboard vessels, and the construction, organisation and administration of shore-based sewage disposal and collection systems. Recreational boaters around the world are finding that, in today’s atmosphere of environmental concern and demands for personal responsibility, their ‘flush and forget’ sewage disposal practices are no longer publicly acceptable. However, they remain highly resistant to attempts to regulate the discharge of sewage from their vessels, even in jurisdictions with a long history of regulating such discharges. Through a socio-historical consideration of the development of sewage regulations, in this chapter I make the case that this level of dissent against imposed sewage regulations is part of a history of resistance to the imposition of changes to sanitary practices and that rather than being a tame problem

1 Literally translated from the Latin as “Shitter, watch out”, it was found on Roman interment as a warning not to desecrate or befoul them (McKeown 2010) and inscribed on tavern walls in Pompeii as a “warning not to use places other than those designated for satisfying certain physiological needs” (Jacobelli 2003:64).
and uncontested policy issue, sewage regulation is a wicked problem that has in the past resisted, and continues to resist, resolution.

**Wicked policy problems**

Viewed through the conceptual lens of wicked and benign (or tame) problems (Rittel & Webber 1973; Conklin 2006), policy problems which are defined primarily as problems of infrastructure provision are, generally, regarded as tame. Problems like the management of sewage, particularly the provision of sewer infrastructure, have traditionally been considered by policy makers and engineering and planning professionals to be tame because they are “definable, understandable and consensual” (Rittel & Webber 1973:156). Though complicated, they are readily solved through the application of appropriate technology, infrastructure and processes (Grint 2005:1473). This view is advanced by Rittel and Webber (1973:156) who note in their seminal essay on wicked problems, the solution of tame problems is a hallmark of the developed world:

> The streets have been paved, and roads now connect all places; houses shelter virtually everyone; the dread diseases are virtually gone; clean water is piped into nearly every building; sanitary sewers carry wastes from them; schools and hospitals serve virtually every district; and so on…But now that these relatively easy problems have been dealt with, we have been turning our attention to others that are much more stubborn.

The wicked problems to which attention was being turned are, by contrast to their tame predecessors, socially complex, unstructured, cross-cutting and relentless with no clear solutions (Weber & Khademian 2008). As shown in figure 3.1, occurring at the intersection a high degree of complexity of elements and interdependencies, uncertainty of knowledge, risks, consequences and changing patterns, and value divergence (Head 2008, 2009) wicked problems are unstable, complicated and multi-causal.
Figure 3.1: Characterising wicked problems

It has been argued that wicked problems are subject to continual redefinition and resolution (Coyne 2005:5); each attempt to solve a wicked problem changes the understanding of the problem (Weber & Khademian 2008:335). Wicked problems tend to be ill-defined. There is often significant disagreement among stakeholders as to how to define and solve the problem (APSC 2007), and there is rarely clear agreement regarding who the legitimate problem solvers are (Wexler 2009:533). Because wicked problems are not objectively given the formulation of both, the problem and legitimate solutions depend on the viewpoint of those presenting and defining them (Coyne 2005:5). As a result, various psychological, sociological, religious, moral and cultural factors can further complicate wicked problems because such problems are:

...based on a set of critical but unexamined assumptions, which define the boundaries within which the phenomena can be talked about, referred to, and within which solutions can be proposed. Such assumptions become part of the problem; they are not questioned or scrutinized, but are taken for granted. They become incorporated into personal thought and action as basic truths that reflect the ways things ought to be (Wallack 1984:474).

Because wicked problems are, in many respects, socially constructed, the concept of discourse is important. A discourse is a particular way of representing some part of the physical, social, and psychological world and a shared perceptual framework that links power and knowledge (Foucault 1990; Dryzek 1997). There are alternative and often competing discourses at any given time. These discourses differ in how social events and
phenomena are represented, what is included or excluded in these representations, how abstractly or concretely they are represented, and how different social actors and relations are represented (Fairclough 2003:17). Policy outcomes, such as infrastructure and laws, can be “understood as a sort of echo that reflects the winners of past discursive struggles” (Sharp & Richardson 2001:200). There have been a variety of motives for the municipal provision of sewers and other sanitary infrastructure and regulations (Tarr 1985a:281), and historically, the timing and form of sanitation practices and infrastructure have been inextricably linked to the prevailing discourses of the time which reflected ideas about health, the environment and excrement more generally (Melosi 2000).

A socio-historical overview of sewage regulation as a wicked problem

In the early 20th century William Allen (1903) proposed the idea of sanitation motives to highlight the link between the development of sanitation regulations and broader societal attitudes and practices. The seven sanitation periods Allen proposed at the turn of the last century are: personal, comfort, commercial, nuisance, anti-slum, philanthropic and socialistic. I propose an additional three periods applicable to countries where the same problems have been largely solved—scientific, environmental and ethical—to reflect changes to sanitation motives which occurred in the twentieth century and early twenty-first century. These periods in the evolution of sanitary regulation are characterised by the introduction and adoption of certain sanitation rules, practice and technologies founded in the dominant attitudes of the period. Each of these periods is characterised by key constructs, discourses and motives which positioned ideas that defined the sanitation problem and directed the infrastructure and practices adopted to manage it.

Although Allen conceives of the periods of sanitation occurring in a somewhat chronological fashion, he did not develop them to correspond directly to historical periods in any strict sense. Instead, he suggests that “[e]ach state and each city, if left to itself, passes through the same stages in its administration, even where a complete code is legislated, not evolved” (Allen 1903:634). However, in the contexts of the western world, Allen’s periods of sanitation—based on both individual and collective motivations—can be roughly mapped in relation to the five broad and undeniably Eurocentric sanitation ages proposed by Lofrano and Brown (2010) (figure 3.2).
Sanitation in early civilisations

Lofrano and Brown (2010:5256) identify the first main age in the evolution of waste water management as early history where the first settlements were formed by small groups of hunter-gathers; their sanitation problems were relatively limited because their waste was scattered over large areas and decomposed using natural cycles. This age broadly corresponds with Allen’s personal sanitation motives.

The personal period of sanitation

Once people began to live in more static communities and in larger numbers they became conscious of both of sanitation in general and, more specifically, about the necessity of shared sanitation rules and their enforcement. Sanitation rules were developed regarding the treatment of the dead, through practices such as embalming, burial and cremation, and ablutions through designating acceptable places for defecation and the disposal of excrement. When urinating and defecating on the ground in the immediate vicinity of dwellings became unviable and “too unpleasant” due to the increasing density of people living in the same community rules were developed to regulate these activities (Rockefeller 1998:5)

Sanitation management in this period was a personal responsibility. Individuals were responsible for the disposal of their excrement and other wastes according to societal rules and sanitary practices driven by adherence to social norms and mores with a religious or cultural basis. In this period, practices designed to minimise exposure to disease and injury were interwoven with moral choices. Allen (1903:635) consequently describes this period as heralding the development of moral standards and principles to
guide sanitary practice based on “the unhealthful [becoming] the offensive, then the antisocial, finally the immoral”.

**Sanitation in Roman times**

Lofrano and Brown (2010:5256) identify the Roman period as the second age in the evolution of waste water management. This period broadly corresponds with Allen’s comfort sanitation motives.

**The comfort period of sanitation**

During the second period of sanitary evolution, infrastructure was introduced for the health and comfort of a relatively few prosperous citizens. In the *comfort sanitation* period, practices and dedicated infrastructure were designed to serve wealth and power rather than to protect either public or private health. They were a privilege for the elite. The pre-eminent example of comfort sanitation provided by Allen is Roman sanitation practice. Large scale public works were constructed to gratify the tribute-taking classes’ taste for cleanliness, comfort and convenience, and to address a growing aesthetic sensitivity. While some of the benefits of this sanitation infrastructure benefited broader society as a whole, often it permitted only partial access by the poor (Allen 1903:635).

When considering sanitary advancements in antiquity, the Roman civilisation is frequently recognised for its aqueducts to convey clean water, sewers to remove wastewater and lavish bathhouses to cleanse the body. Although such grand public works are seen by many as a symbol of care for the populous at large, Allen enjoins that what must be remembered is that the primary sanitation motive in this period was not necessarily to protect either public or private health but rather “to serve wealth and power” and provide for the private comfort of the ruling elite (Allen 1903:635).

Pliny described the Cloaca Maxima as “the most noteworthy achievement” of Rome (Horan 1985:11), but the problems of sewage and the attendant problems caused by attempts to manage it were far from resolved. Despite common belief to the contrary, the sewers of Rome, including the celebrated Cloaca Maxima, were primarily conduits for the removal of surface drainage, predominantly rain water (Gayman 1996). They were not designed to function as sewers as we understand them today (Webster 1962:116). It should be noted, however, that while not designed to receive excrement
directly, inevitably bodily and other wastes disposed of into the streets were flushed into the sewers in the process of street cleaning (Gray 1940:943).

Few private houses in Rome had latrines connected to public drains (Gowers 1995:27) and only a few privileged citizens could apply for a costly permit to connect their homes to the city sewers (Horan 1985:12). This lack of connection to a sewer system should not, however, be seen to equate to an absence of rules governing sewage disposal and management in ancient Rome. There were many social and cultural rules governing ablutions practices. The relatively clean city has been attributed to the use of clay jars which were emptied into public cesspits (Horan 1985:14) and the provision of a system of public latrines and vases. By 315AD, there were reportedly more than 140 public latrines in the city of Rome (Horan 1985:13). The use of the urinals was compulsory (Muir 1983:133) and the Roman Emperor Vespasian made a handsome profit by collecting the effluent into larger urinary reservoirs and selling it to dyers for the fulling of cloth (Lambton 1995:7). However, Taylor (2005:56) notes that as productive as these endeavours may sound, in practice, the smell of the stored urine was putrid and, because the terracotta jars were porous, they would often leak or sweat and if cracked could break, releasing their contents into the street. Consequently while the fullers became very rich they were also looked down on by Roman society (Holme 2003).

The sanitary dark ages

While the Middle Ages witnessed the first sustained urbanisation of northern and western Europe, it also experienced what many have characterised as a backward step in sanitation (Webster 1962). Allen (1903:636) notes that the third period of sanitation “should have followed directly upon the second, but historically there was a period of two centuries…when civilization was without the fundamental motives to sanitary improvement”. The Middle Ages saw public bathing discredited (Stone 1979:284) and the sanitary installations left by the Romans and others demolished or let fall into ruins (Wright 1966) based on “the conviction, crossing whole social classes, that water ‘was bad’” (Lofrano & Brown 2010:5258). These sanitary dark ages form Lofrano and Brown’s (2010:5258) third age in the evolution of waste water management.
It is often charged that the streets of mediaeval towns were constantly foul-smelling and full of filth owing to a number of practices including: the lack of closed sewers and private or public toilets; the custom of throwing refuse into the street and defecating indiscriminately wherever most convenient; and the failure of the municipal authorities to clean pavements (Thorndike 1926:192; Gray 1940:942). The filth which accumulated in the streets was a haven for rats, the fleas of which carried the bubonic plague bacillus (Hansen n.d:9).

By the early 1300s in London there was “strong public opinion in favor of the wayfaring population using the public conveniences instead of relieving themselves in the streets” (Sabine 1934:307). To explain this shift, Norbert Elias (1995) advances the idea of the civilising process which, he contends, led to more controlled forms of conduct regarding bodily processes including spitting, sneezing, sex and defecation. Ian Miller (1997:151) challenges Elias’ “caricatured view of the Middle Ages in which civility was at a minimum and shame and disgust over bodily functions pretty much non-existent” as not being entirely accurate. It is Miller’s view that, although excrement was ubiquitous, it was still defiling and considered disgusting throughout this time. Notwithstanding these assertions, Allen identifies three periods of motivation for sanitation which correspond to the development of sanitation regulations in these sanitary dark ages toward the end of the Middle Ages: commercial, nuisance and anti-slum.

The commercial period of sanitation

A new class emerged towards the end of the Middle Ages: the merchant. The growth of trade and the merchant middle class was tied to population growth in towns. Towns were built on trade, and the emerging elite of towns were the merchants. Allen characterises the commercial period of sanitation as a response to the widespread disease and death caused by the ravaging epidemics of the Middle Ages and the concomitant need to protect commerce and mercantile interests. Allen (1903:637) argues that during

Certainly, given the role of bodily functions in religious polemic of the time which saw the human body as distasteful and equated the feminine with pollution and the way in which excremental discourse, filth and ritual pollution to denigrate was used to denigrate the religious other (Cuffel 2007) and to “persuade, humiliate, accuse and control” (Morrison 2008:33) would seem to support Miller’s assertion. As does the fact that the garderobes or privy chambers in medieval castles were positioned as far away as practical from the interior chambers and often had double doors added to reduce the incursion of odours into other spaces within the castle.
this period “a well-defined philosophy soon arose to justify the protection to commerce and garments and health”. Sanitary practices which began to be adopted in this period included the introduction quarantine regulations and the emergence of the idea that filth causes disease (Chapin 1902:234), but did little to address issues of sewage regulation in a planned, organised or controlled manner.

The nuisance period of sanitation

Medieval and Renaissance cities were cramped spaces with butchers, tanners and other polluting industries situated alongside their less noxious neighbours. The lack of separation between industrial and domestic living areas meant that dirt and offensive smells spilled into residential spaces. The nuisance period of sanitation was marked by the introduction of nuisance laws as a response to the unaesthetic noises, sights and foul odours caused by poor sanitation, waste management and mediaeval industry in general.

Early in this period the concept of nuisances focused on matters such as protruding roofs or piles of rubbish, however, by the end of this period the category of nuisance had widened to include “obnoxious animals, offensive trades, foul watercourses” (Allen 1903:638). Allen (1903:637) notes that nuisance presumes social strata for while “every householder owns a goat, a pig-pen and slop barrel a stable and a muddy, foul door-yard, there will be no calls…to declare this…a public nuisance”.

While garderobes, leading to cesspits or moats (Ellis 1996:401), had featured in castles for some time, in this period, the aristocracy of Europe began to incorporate privies into their homes. The privy was a small closet or room with a chamber pot or a close-stool within it which offered a private place to defecate and signalled an important change in attitude towards privacy in relation to both excreting and the objects used for handling excreta. Concern with minimising the disgust and offence caused by the sight and odour of sewage was the primary factor in determining the method of excrement disposal; if these nuisances were corrected, the method of disposal was generally considered appropriate and adequate (Taylor 2005:66).
As shown in figure 3.3, in this pre-sewer age human wastes were primarily deposited into cesspools and privy vaults, or directly onto the streets and indirectly (or eventually) into adjacent streams.

Despite the contamination of wells and other groundwater by seeping excrement, the cesspool system also continued to be popular (Sabine 1934). Seeping from cesspools was not necessarily seen to be a problem by their owners; the more rapidly their contents disappeared, the more valuable a cesspool was thought to be; it required less frequently cleaning (Wheeler 1886:14). The average well-to-do citizen in London hired a professional gong farmer to clean his out privy or cesspit (Bergin 2003:16) and transport the excrement collected to laystalls beyond the city limits or to dung boats on the river front (Sabine 1934:317). It has been suggested that the job of gong farmer was considered so unsavoury by Tudor society that they were only allowed to work during the night and were forced to live together in designated areas (Robinson & Wilcock 2004). The adoption of these waste removal practices, and the treatment of the gong farmers, reflected a growing sensitivity to the presence of excrement that was fuelled by the fact that not only were individuals not seen defecating, excrement was also not seen being carted away. Around the same time as these waste management practices
became widespread, euphemisms for excrement and defecation, in the English language, also began to become more common (Inglis 2001).

**The anti-slum period of sanitation**

During the anti-slum period of sanitation, the leading motive was again primarily economic and moral, rather than hygienic or public health focussed. Just as the nuisance period of sanitation was marked and strongly influenced by urbanisation-driven changes in social stratification and differentiation, the anti-slum period of sanitation saw the development of “precautions by ‘those who have’ against the hidden dangers incident to neighboring lower standards of life i.e. against the slum” (Allen 1903:638).

The Industrial Revolution further hastened the shift of population from relatively sparsely populated rural areas to more densely concentrated urban areas. Most towns were not prepared for the influx of population. Excrement collected in courtyards, alleyways and streets. Diseases such as diarrhoea, gastroenteritis, dysentery, typhus and cholera were easily spread. Generally, while filth and stench were considered offensive, they were also accepted as somewhat ubiquitous and unavoidable. Although there was some concerns about the smells and filth being the potential cause of disease, no significant state action was taken; health was seen primarily to be an individual responsibility (Geels 2006:1073). Consequently, this motive saw the introduction of sanitary changes to remedy the perceived dangers caused by poor sanitation in slums based on a need to protect “those who had the greatest share in the returns from production” (Allen 1903:639). That is to say sanitary changes were made for “the benefit of the merchants, lawyers, women of the world, etc., who suffered discomfort and [financial] loss and interruptions” as a result of epidemics (Allen 1903:639). Laws introduced in this period saw increased the regulation of the defecatory practices of individuals. However, because sanitation in this period was based upon the interests of the few, organised responses to sewage management were intermittent and citizens were unmotivated to act collectively to manage sanitation problems.

**The age of sanitary enlightenment**

By the eighteenth century, ideas of personal and community hygiene were becoming institutionalised. However, it was during the nineteenth century that “shit became an object for state intervention” (Hadolt 1999:197). By the Victorian era, health had
become one of the key drivers of sanitary regulation and practice. A wide variety of local regulations were introduced to govern food markets, the slaughtering of animals, and the sale of meat and fish. These regulations were motivated by a genuine concern for the poor, a desire for food of a reasonable quality and commercial considerations (Duffy 1993).

Within Lofrano and Brown’s (2010:5259) age of sanitary enlightenment two somewhat overlapping periods of sanitation, based on Allen’s descriptions, can be identified: philanthropic and socialistic. Many of the same ideas about sewage dominated these two periods, gaining and losing popularity throughout them. However, what primarily differentiates these two periods is the means by which sanitation reform was achieved. During the philanthropic period of sanitation, corporate and private money, including charity, were used to fund sanitation reforms. In contrast, the dominant source of funding in the socialistic period of sanitation was public funds raised through taxes.

The philanthropic period of sanitation

In the first half of the nineteenth Century “men imbued with a sense of humanitarianism and a scientific spirit” started what has come to be known as the sanitary movement (Stone 1979:288). This philanthropic period of sanitation was based on the belief that sanitary reform offered direct and efficacious means of reducing social inequality. It was accompanied by the construction of hospitals, schools and model tenements through private philanthropy. According to Stuart Oliver (2000:231), the discourse of improvement which drove this period was derived from a mixture of “Benthamite utilitarianism and humanism” and was initially deployed to promote public order, and the discipline and containment of urban problems.

The sanitary movement of the 1800s initiated a value change in which many urbanites became convinced that filth was no longer a nuisance to be tolerated but rather a health hazard that could be eliminated (Tarr 1996:205). It is widely held that the sanitary movement began in Great Britain with the work of Edwin Chadwick, who was central to most state innovations in social policy during this period (Kearns 1988:187). Chadwick and his contemporaries sought to promote a healthy urban environment by cleansing the cities; changing people’s ideas about their own personal habits of cleanliness; creating an
enlarged role for government in areas related to health and sanitation; and promoting the construction of urban public works (Tarr 1996:204). Chadwick promoted the idea that insanitation and poverty, rather than defects of character, negatively impacted on the morals and habits of the working-class (Chaplin 1999:147) and highlighted the connection between overcrowded conditions, lack of adequate disposal of human waste and diseases such as dysentery, cholera and typhus (Horan 1985:86). The link between epidemic diseases and sanitation arose from the prevailing belief at the time that filth, pollution and the squalid living conditions of the urban poor were primary causes of disease (Louis 2004:306).

Chadwick, like many of his pre-Pasteur contemporaries, operated under the influence of the filth and miasma theories (Dingle 2008:17) which held that most, if not all, disease was caused by inhaling air that was infected through exposure to corrupting matter such as rotting corpses, the exhalations of infected people, sewage, or rotting vegetation (Halliday 2001). Filth and miasma theories were anti-contagionist theories because they were based on the idea that disease arose spontaneously from bad smells and sewer gases and could not be transmitted from person to person (Melosi 2000:47). Instead miasmas were conceived of as “invisible atmospheric substances generated, first, by the putrefaction of organic matter and, secondly, by the human body in the course of daily living” (Driver 1988:278).

Theories of filth and miasma were a perfect fit with Victorian mores (Barry 2005:50). The human body itself was characterised as “a smoking dung-hill, with a vapour emanating from every part of it” and miasmas were considered to be at their most deadly and concentrated in areas of restricted air circulation and high population density (Driver 1988:278-279). The appropriate means advocated for dealing with these conditions was improved public works including paved streets and ventilated buildings (Melosi 2000:47).

By the early to mid 1800s water closets had become popular with the affluent public and also with sanitary reformers “for whom the stink of the privy was a sign of a disease causing miasma or vapor” (Hamlin 1980:18).
The introduction of water closets appeared to offer city dwellers a more convenient and seemingly more sanitary method of disposing human waste (Melosi 2000:40). However, the installation of water closets in the absence of effective sewerage systems resulted in unanticipated problems.

Water closets encouraged the greater use of water and the wastes from water closets ran directly into cesspools and privy vaults which were not designed to deal with such large volumes of waste, thus overwhelming their capacity (Gaard 2001:157). Due to the large volumes of waste and water, cesspool waste no longer percolated into the surrounding soil but overflowed into the adjacent streets and city drainage systems. This shifted problems of sewage pollution from localised subsoil contamination to increasing pollution loads in nearby rivers, streams and lakes (Melosi 2000:40). As a result, many sanitary campaigners argued for a shift away from cesspools and privy vaults toward a system of sewers, “but by then the psychological and technological die had been cast [and] the basically unsound practice of dumping excreta into any convenient body of water was rationalized” (van der Ryn 1995:12).

The socialistic period of sanitation

Chadwick conceived of the city as a body and clean water as the purifying medium circulating through pipes and sewers (Bell & Teh 2009:21). He denounced cesspools as a health hazard (Allen 2002:386) and proposed modern sewers to correct the problem (Horan 1985:86). Combined sewers, which collected all waste together (rain water, household wastewater and sewage) and carried the raw sewage away from the streets and into rivers, lakes and the sea, became the norm. The faeces and urine were lost as a possible fertilizer (Geels 2006:1074) and the concept of sewage as a potential resource

3 The broader introduction and popularity of the water closet was supported by improvements in water delivery through pumping stations and pipes, the introduction of iron pipes for water supply and glazed pottery pipes for “hygienic sewerage disposal” (Muir 1983:141). By the late 1800s pottery manufacturers also became capable of producing ceramic sanitary fixtures that were inexpensive compared to the metal-based fixtures that were previously used. This made owning a water closet possible for those with modest incomes, rather than just the wealthy (Ogle 1996:94).

4 Widespread development of combined sewers which discharged sewage to river and London’s status as the best sewered city in the world in the mid-1800s are attributed to his reform efforts (Wheeler 1886:14). However, nutrient recovery from sewage was a large part of Chadwick’s ideas for “creating a virtuous cycle of food production, consumption and resource recovery”, but was never realised. Chadwick’s ideal closed loop system relied on “a strong relationship between a city, its food and its shit, which was undone by new agricultural sciences, industries and trade” (Bell & Teh 2009:21&22).
was subordinated by the view that it was a waste to be removed as quickly as possible. This was “a result of the timing of scientific discoveries and of the interplay of scientific ideas with the economics of fertilizer manufacture…intermeshed with…the public’s changing ideas about sewage” (Hamlin 1980:18).

While using miasma theories to validate their calls for the reform of housing, improved water supply and waste disposal systems, the sanitary movement was not simply a narrowly defined public health enterprise. Moral filth was just as much a concern as physical filth (Driver 1988:279). Chadwick’s influential 1842 sanitation report was “dominated by the rhetoric of danger, filth, and alienness” (Pike 2005:67) and this discourse no doubt struck a chord with the sensibilities of Victorian England.

Of particular concern in late Hannoverian and Victorian England (perhaps at least in part driven by the same urban socio-economic forces that necessitated the Reform Act 1832) were the countless post-Hogarthian “places of darkness and concealment [within the city] for the fermentation of moral disease” that were “located beyond the public gaze, outside the ambit of official surveillance” (Driver 1988:281). The installation of sanitary appliances in houses allowed for greater “body discipline and the inculcation of new hygienic norms” (Dagenais & Durand 2006:630). Specifically the relegation of hygienic practices to the private sphere through the distribution of water into the homes and the installation of water closets in many ways relegated the task of cleaning both the city and the self to individuals, but in a new and different way to the laissez-faire individual responsibility approach of the Industrial Revolution.

The socialistic period of sanitation saw the increasing involvement of governments in sanitation and matters of public health and wellbeing and a shift away from a voluntary, philanthropic, individualistic approach (Hardy 1993:70). As Allen describes it this period was characterised by “activity, endeavour, construction, [and] application of public funds to remedy social wrongs or deficiencies” (Allen 1903:641). During this period it became acceptable for government officers to enter dwellings and lodging houses to determine their sanitary condition. It also saw the prescription of territorial limits to water and air pollution and the large scale construction of waterworks and sewage farms. This period
was based on the ideal that “the public has the right and the duty to use public funds to remove and to prevent disease or conditions that generate disease” (Allen 1903:642).

The Public Health Act 1848, which legislated the sanitary conditions of England and Wales, is heralded as “one of the greatest milestones in public health history” (Fee & Brown 2005:866). It saw the state become the guarantor of standards of health and environmental quality for water supplies, sewerage, control of offensive trades, quality of foods, paving of streets, removal of garbage, and other sanitary matters. While the Act was only passed after several failed attempts because a new wave of cholera was sweeping westwards across Europe (Fee & Brown 2005:867), it has been argued that the changes brought about by its introduction were based on the combination of:

…a clear environmental context (health depended on sanitation), an administrative structure (the need for centralized public control), a substantial technical response (investment in new infrastructure), and recognition of the need for breadth of service delivery (via public health concerns) (Melosi 2000:48).

However, even following its proclamation, the activities of the Board of Health established under the Act were resisted by vested interests who opposed regulation “in the name of property rights and human freedom” (Fee & Brown 2005:867).

In the late 19th and early 20th century, many cities constructed sewer systems to centralise the treatment of wastes and replace privies and urban septic systems with sanitary sewers. The British in particular were considered to have “led the world in the technical development of sewerage and treatment works” (Sheail 1993:444). In doing so they aimed to reduce disease and odours caused by sewage contamination of water and soil. However, the introduction of sewer technology simply resulted in a shift in the locus of pollution.

With the cesspool-privy vault system, pollution problems were localized—the earth around cesspools was saturated, and wells and groundwater supplies were endangered with contamination. However, the water-carriage system shifted the locus of pollution to streams and rivers often distant from the household (Tarr 1996:117) and consequently out of sight and beyond common perception. It was argued that:
Running streams furnish[ed] the best available means for the disposal of liquid filth, and refuse of cities. Water carriage, when available, has been found to be the cheapest, as well as the least objectionable means of disposing of the large quantities of filth that would otherwise accumulate, to the detriment of public health (Wheeler 1886:18).

It has been argued that authorities are traditionally sceptical of people’s ability to manage their own waste (Rockefeller 1998:11) and the introduction of sewer technology offered governments control over “environmental conditions and the social order, between physical and moral contagion” (Boyer 1983:17; Poovey 1996). In support of this idea Beder (1990a:32) cites Corfield’s 1871 Facts relating to the treatment and utilisation of sewage in which he argues that “decent people” manage their wastes so that they are clean and inoffensive, but that the “lower classes” need things to be managed for them because they are incapable of or unwilling to manage their own waste in a sanitary way. As a result, an attraction for public authorities of water-carriage systems linked to sewers was that they were relatively simple and automatic to operate, and they removed the waste from inside the home immediately. These systems offered a greater potential for government control of waste disposal and the visible signs of dirt and disease were removed from the city streets (Beder 1990a) helping to allay bourgeois fears of “the mess and filth of low-Others…[whose] dirt and smell transgressed the boundaries between the clean suburbs and the filthy slums” (Pile 1996:179).

It has been argued that it was, primarily, a sense of smell which engaged sanitary reformers, because smells “had a pervasive and invisible presence difficult to regulate…[and] organized above all around disgust” (Stallybrass & White 1986:139). Because odours are formless, composite, invisible ghosts that freely merge until they are impossible to trace back to their source they are difficult to avoid and imagining their origin is unnerving. Once encountered, they enter our bodies against our will, threatening our individuality and forcing us to become intimate, in the real sense of the word with Others against our will; and “contamination by other people is what we really fear about dirt” (McLaughlin 1971b:6). This contamination involves the subject becoming indistinct from the object, each becoming part of each other (Longhurst 2001:29). Sewer construction therefore appealed to a middle-class desire to achieve “the utopia of the odourless city” (Illich 1985:47) and “could be built without actually dealing with the dangerous classes (Porter 1999:505).
A “proper sewage system” (Pile 199:179) was needed to realise these clean odourless bodies and:

Although the actual toilet might remain a private responsibility and therefore subject to abuse, the automatic nature of the flush toilet removed the need for individual decision making about when and how to remove sewage from the home and the collection, carriage and disposal was necessarily a centralised, government controlled activity (Beder 1990a:32).

While it is true that sewers were seen to be more scientific than the existing alternatives, which seemed to be somewhat primitive, a further incentive for the state’s increasing involvement in the provision of sewers, according to Beder (1990a:p), was that sewers also:

took responsibility away from individual householders and landlords and private carters, whom, it was felt could not be trusted. Dry closets especially, depended on proper management in the home as well as regular collection and responsible disposal. Sewers removed the cause of trouble quickly and quietly from under peoples’ noses.

While the public at large was encouraged to view “water-closets as being clean and sewers as being the mark of progress and civilisation” (Beder 1990a:30), the most prominent psychological change which resulted from the widespread introduction of these technologies was the identifiable shift in the locus of responsibility for managing one’s own sewage waste in the perceptions of the general public. As Sheail (1993:445) reports community sentiment toward sanitation as beginning to reflect the attitude that “[f]or as long as sewage was removed from their premises as speedily, unobtrusively and cheaply as possible, rate payers took little interest in its eventual treatment and disposal”.

Likewise, the question of what to do with the sewage once it had reached its destination and the problem of subsequent pollution at the point of discharge were considered by the authorities and the engineers to be a separate and less important questions and were not allowed to confuse the issue of how best to collect and remove sewage (Beder 1990a). While this lack of concern epitomises the idea of out of sight and out of mind, the impacts of such practices on downstream and coastal communities were becoming evident. The water-sluiced sewer system which had replaced the cesspool-privy vault system and which relied on dilution as a disposal method had simply recreated the health
hazards of the old system in another location so that downstream drinking water supplies were affected (Tarr 1996:122). Discharging sewage into watercourses was both a cheap and practical option for many towns. However, landowners along the river and downstream towns, of course, “did not take kindly to such benign neglect” (Melosi 2000:54).

A new era of science and environmental sanitation

Allen developed his periods of sanitation at the turn of the last century. During the 1990s environmental and scientific concerns became driving forces in sanitation decision making. Based on this, I propose an additional two sanitation periods which align with Lofrano and Brown’s (2010) sanitation age of stringent environmental standards: a scientific period of sanitation driven by advances in scientific knowledge; and an environmental period of sanitation driven by increasing ecological concerns.

The scientific period of sanitation

In the late nineteenth century new social, cultural and medical agendas emerged which influenced sanitation decisions (Ogle 1996). Bacteriology, or germ theory, had virtually no impact on sanitary efforts pre-middle to late 1880s; by the early twentieth century it became the driving force behind sanitation reform linked firmly with public health agendas in what Melosi (2000:3) has termed the “Bacteriological Revolution”.

The most notable early contribution to the idea that polluted water, rather than air, was the principal cause of cholera epidemics is the work of John Snow. He found that cholera was transmitted through water supplies contaminated with the faeces of cholera victims. However, Snow’s hypothesis was not accepted in official circles at the time of his death in 1858 (Halliday 2001). Pasteur had developed the first ideas of micro-organism or germ theory in the mid-1800s. Many reacted sceptically to these ideas, because the micro-organisms were too small to see. Micro-organism theory provided a model for water pollution with real rhetorical power, based on the notion of “armies of microbes waiting to invade the body” (Geels 2006:1075). However, the germ theory of disease only took over from miasma and filth theories when the micro-organisms of particular diseases were able to be seen under the microscope (Dingle 2008:119) or, later,
identified through the use of gas chromatography and other equipment which brought about new ways to classify and identify these invisible contaminants.

Government interest in providing and public expectation for the provision of sewer infrastructure continued to grow with increasing scientific and public understanding of the aetiology of disease. The advent of bacteriology modified sanitation priorities as anti-contagionist ideas were discredited. The simple objective of preventing illness by removing waste or by providing water that appeared pure to the senses (in terms of odour, colour and the absence of gross particulates) was replaced by greater attention to biological indicators of pollution (Melosi 2000:103).

A number of key scientific developments contributed to a new understanding of the idea of water pollution and the identification of end of pipe problems from sewage discharges. These included as a growing conviction of the association between chemical water pollution and toxicity (Lofrano & Brown 2010:5260) and the introduction of scientific concepts of water quality such as biochemical oxygen demand. New knowledge of bacteria and of their role in breaking down and oxidising organic materials opened up new possibilities for sewage treatment, including various methods of biological filtration (Dingle 2008).

During the second half of the nineteenth century, sewage treatment methods developed rapidly and included broad irrigation or sewage farming, large scale septic systems and chemical precipitation. By the end of the century sewage treatment plants became the favoured method because they required less land and were less odiforous for adjacent land uses. However, their increased use also resulted in less utilisation of the sewage for agricultural and related purposes and large volumes of water-logged sewage (Beder 1993b).

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5 Sewage farming is similar to irrigation but applies sewage instead of ‘clean’ water to lands where crops are raised. Chemical precipitation is a method of wastewater treatment in which chemicals are added to form particles which settle and remove contaminants. Large scale septic systems treat waste through the anaerobic bacterial environment that develops in the septic tanks and decomposes or mineralizes the waste in the tank.
Often river discharges underwent some form of rudimentary treatment, although it should be noted that in addition to aqueous effluents, the processes of sewage treatment also produced sewage sludge\(^6\) which was discharged into the environment (Jones & Stevens 2007). However, it is not by pure coincidence that the word sewer means seaward in Old English (Gayman 1996).

Early sewers were little more than elaborate transport networks designed to distance people from their wastes with little attention to where they ended up (Melosi 2000:424). As populations grew and rivers became too polluted, cities succumbed to what Behrman (1969:368) euphemistically refers to as “the irresistible call of the sea as sewer”. To manage river pollution, ocean outfalls were created to remove sewage from rivers and to pipe it raw into the sea, where it was thought to degrade naturally. The discharge of raw sewage continued to be considered acceptable due to the perceived assimilative and absorptive capacities of the ocean due to its vastness and perceived emptiness (Ward 1996; Illich 1985; Smith & Young 1993).

The ocean was assumed “to be able to neutralize poisonous substances in any quantity because it dwarfed and drowned them” (Patton 2007:38). As a result of views such as these, which were shared by the marine scientific and engineering professions, sewage waste disposal was dominated by unconcerned sea disposal. Proponents argued that sea disposal was the best practicable environmental option when weighed again the costs and benefits of land-based treatment (Jordan & Greenaway 1998; Goldberg 1990). However, a new political, social and environmental context began to emerge in popular perceptions during the late 1980s that significantly altered public ideas of sewage regulation, protests over the Sydney sewage outfalls being a case in point.

The environmental period of sanitation

Environmental degradation from sewage disposal was not always a result of a wilful act on the part of the waste generator (Tarr 1985b:101), but was based on the hypothesis that running water purifies itself (Wheeler 1886:18). Such ideas sanctioned the disposal of sewage in streams and rivers and the chemical analysis tools available at the time

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6 Sewage sludge is the semisolid residue left over after the treatment of wastewater which is disposed of as waste through landfill, incineration or marine dumping or it can be further treated before use as fertiliser. (Jones & Stevens 2007).
seemingly gave a scientific stamp of approval to such practices. However, these practices resulted in highly polluted waterways and major outbreaks of typhus in downstream cities that could be traced back to sewage disposal (Gaard 2001:157) and it began to be acknowledged that dumping sewage into river systems could not be sustained.

The modern environmental movement produced a new paradigm in which sanitation infrastructure and practices, among others, were viewed with different eyes (Melosi 2000:284). Carson’s *Silent Spring* (1962) captured the emerging interest in the environment. In countries like Australia and the United States, the body of national, state and local environmental laws governing the disposal of sewage began to reflect a new set of values that included a regard for the quality of the natural environment from an amenity and aesthetic perspective as well as a concern for public health.

By the 1980s, there was a reappraisal of scientific understanding of sewage disposal at sea and increasing community activism against such disposal. In Australia, the release of Beder’s *Toxic Fish and Sewer Surfing* (1989) reflected an identifiable shift in the collective attitude in Australia regarding the acceptability of the various sewage management options adopted by municipal authorities. However, in many respects, the public pressure put to bear in the late 1980s and early 1990s was aimed at cleaning up the beaches in general and not about changing sewage management practices per se. Even at the height of the debate most opponents were simply arguing for the sewage to be better treated and many were concerned primarily about the aesthetic pollution. Public calls for sewage reform were based on the idea that the management of public wastes, like sewage, is the responsibility of government.

As Hawkins (2004:1) notes:

> When we protest about filthy beaches and ocean outfalls we become activist citizens concerned to make the state account for its actions: concerned to advocate for oceans and waterways to be protected from gross exploitation.

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7 Carson brought the issue of DDT pesticide toxicity to public awareness in the *Silent Spring* although, as a marine biologist, a concern for coastal and marine environments were the focus of her first three books *Under the Sea-wind* (1941), *The Sea Around Us* (1951) and *The Edge of the Sea* (1955).
Leadbitter (1996) likewise notes that the public concern and environmental activism regarding the pollution of Sydney ocean beaches by the discharge of primary treated effluent focussed on the outfalls, keeping the debate centred on end-of-pipe solutions. The paradox is that at a time when environmental concerns about the disposal of sewage were increasing, direct knowledge of and personal responsibility for and interaction with our sewage waste was at an historical low.

At this time there was also an emerging interest in addressing all potential sources of sewage pollution including sewage discharges from ships which resulted in the development of international conventions and corresponding national legislation to regulate these activities. By the mid-1990s many Australian jurisdictions had begun to explore options to extend these restrictions to prohibit sewage discharges from recreational vessels. However, as this thesis will show in later chapters, these attempts appeared to be driven by more than environmental or public health concerns; there appeared to be an emerging expectation that individuals had an ethical duty to take personal responsibility for managing their wastes and minimising their contribution to pollution, no matter how small this contribution may be.

**An emerging era of ethical sanitation**

Beyond the scientific or environmental motives of the 1900s there is an emerging sanitation era in the new millennium that seems to be based around a more ethical engagement with a range of wastes including sewage.

Ethics can be understood as the moral principles that govern an individual’s behaviour and practices. These often have an environmental basis relation to the moral relations between humans and the natural world that are based on a set of duties, obligations and responsibilities to the environment (Taylor 2011:3). However, it is not limited to this environmental foundation. It also contains a moral component that builds on ideas of social and civic responsibility, being held accountable for the choices that one makes and is based on historical consciousness and moral judgement. A non-sewage example is the emergence of freegan culture that seeks to minimise its impact on the environment by consuming food that has been thrown away. While there is a strong environmental
component to the motives of the dumpster divers and foodbank volunteers\(^8\) that live this freegan philosophy there is also an ethics embedded within their practices that is an anti-consumerist, political and economic response to waste, over-consumption and issues of social justice (Edwards & Mercer 2007).

Just as these freegans are changing the way that they think about and respond to waste at one end of the digestive process, a similar change can be seen to be driving changing practices and attitudes about modern sanitation practices. New sewage management issues are constantly arising, such as the threats posed by oestrogenic (Al-Rifai et al 2007) and endocrine-disrupting (Falconer et al 2006) compounds in water sources and the freshwater and marine environments. People are beginning to question environmental and social sustainability of the large volumes of water used for sanitation purposes. This has lead to an increased interest in practices such as large scale recycled water plants and a renewed interest in small scale sanitation practices such as self-composting toilets and other self-contained systems that reuse water and manage sanitation wastes at the local level—a return to the personal. Certainly these new practices are contested, however, in the previous periods there were also debates regarding the merits and motives of the various sanitation approaches adopted.

**Understanding the forces shaping sewage regulation**

It has been argued that normally we object to wastes, such as sewage, for either health or aesthetic reasons (Tarr 1985b:95), but, as this brief glance at the history of sanitation has shown, the attitudes about sewage that drive our sanitation practices, infrastructure and expectations can shift and are subject to change. Even now, the issues surrounding sewage management and regulation are far from resolved and continue to be shaped by competing forces and discourses. As shown in table 3.1, Allen’s conceptual periods of sanitation can help us to track and catalogue these changes and to identify the dominant discourses and their impact in each period.

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\(^8\) Dumpster diving involves procuring discarded food and other household goods from supermarket dumpster bins for individual consumption. By contrast foodbanks redistribute unwanted food to the needy (Edwards & Mercer 2007).
<table>
<thead>
<tr>
<th>Sanitation Period</th>
<th>Dominant View of the Sanitation Problem</th>
<th>Primary Motive for Addressing the Problem</th>
<th>Solutions Adopted Based on Dominant View &amp; Motives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Historic Times</td>
<td>Personal</td>
<td>Achieve Moral Standards</td>
<td>Distance Self from Wastes</td>
</tr>
<tr>
<td>Roman Times</td>
<td>Comfort</td>
<td>Protect Personal Property and Satisfy a Growing Aesthetic Sensitivity</td>
<td>Remove Wastes from Public Areas</td>
</tr>
<tr>
<td>Sanitary Dark Ages</td>
<td>Commercial</td>
<td>Protect Commerce and Trade</td>
<td>Quarantine</td>
</tr>
<tr>
<td></td>
<td>Nuisance</td>
<td>Protect Pecuniary Interests and Address Aesthetic Concerns Due to Increasing Social Differentiation and Stratification</td>
<td>Remove Nuisance Wastes</td>
</tr>
<tr>
<td></td>
<td>Anti-Slum</td>
<td>Protect Economic Interests Through Addressing Private Health</td>
<td>Increasing Use of Cesspools and Use of Private Labour (Gong Farmers and Nightsoil Carts) to Remove Waste from City and Households</td>
</tr>
<tr>
<td>Age of Sanitary Enlightenment</td>
<td>Philanthropic</td>
<td>Private Philanthropists Desire to Meet Public Health and Hygiene Objectives</td>
<td>Increasing Use of Water-Closets Followed by Large-Scale Sewer Systems Built to Transport Organic Matter from Cities Before Purification Occurred</td>
</tr>
<tr>
<td></td>
<td>Socialistic</td>
<td>Public Administration and Government Apply Public Funds to Reduce Inequality</td>
<td>Preoccupation with Water-Borne Disease Produced by Germs Led to an Emphasis on Water/Wastewater Treatment, However, Idea that Running Water Can Purify Itself is Influential in Treatment and Disposal Decisions</td>
</tr>
<tr>
<td>Towards Stringent Environmental Standards</td>
<td>Scientific</td>
<td>Scientific and Technological Advances to Improve Water Quality Based on Chemical and Environmental Parameters of Water Quality</td>
<td>Control Sewage Discharges in Terms of Location and Quality of Effluent Discharged</td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>Growing Awareness of Environmental Degradation Due to Waste Disposal</td>
<td>Personal Responsibility for Waste Management</td>
</tr>
<tr>
<td></td>
<td>Ethical</td>
<td>Moral and Ethical Awareness Based on Ideas of Social, Environmental and Civic Responsibility</td>
<td></td>
</tr>
</tbody>
</table>
While identifying these sanitation periods helps us to understand the history of the development of various sanitation practices, it is important to note that each period did not entirely erase the ideas and practices of the previous period; these were merely re-incorporated into each new sanitation order in what could be described as a sedimentation process. The ideas and practices of the previous periods form an unseen foundation for the subsequent period of sanitation.

What is left is a kind of sanitation palimpsest⁹ which reflects this history. As such, as a policy problem sewage disposal is never solved but rather is re-solved again and again in which “every implemented solution is consequential [leaving] ‘traces’ that cannot be undone” (Rittel & Webber 1973:163, italics in original) or as Duncan Kennedy (2011:1) so eloquently notes “where there’s muck, there’s memory”.

David Inglis (2002:209) believes that “ideas about faeces and how they should be managed change historically, and are not fixed immutably forever”. However, these shifts do not necessarily occur over long periods of time; there may be instances of micro-variations in which attitudes and practices reverse within the space of a few years (Laporte 2000). Some form of crisis preceded the judgement that something was out of place and needed to change (Wuthnow et al 1984:89); sewage management practices changed only after the occurrence of some kind of social, economic or moral crisis, change or even discovery, and a corresponding change in discourse.

These shifts are not easy to predict or affect. Some practices are more resistant to change than others. Some changes benefit some members of the community more than others. Arriving at the current regime of sewage management and regulation has not been a simple course and, as the above discussion has shown, many of our currently taken-for-granted ideas and practices regarding sewage management have developed and evolved over hundreds (or even thousands) of years. Each sanitation period saw the progressive introduction of more regulation and surveillance into sewage regulation; evolving to taking sanitation choices out of the hands of the individual and placing them firmly in

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⁹ Doyle and Kellow (1995:90) use the idea of palimpsest to describe the structure of the environmental movement in Australia describing a palimpsest as “a parchment from which writing has been imperfectly erased to make room for another text...[resulting in] a document with several manuscripts still visible, mapped unevenly onto each other”.  

79
the hands of government, to the point where government control of the disposal of human faeces has become naturalised and where increasing intervention in the name of sanitation for environmental, public health and aesthetic outcomes is expected.

Understanding sewage regulation as a wicked problem

The management of the disposal of human faeces, or sewage regulation, is socially complex, with neither clear solution nor clear agreement defining the problem being addressed through such regulation, and identifying legal, moral and technical responsibility for causing it or addressing it. It is plagued by uncertainty of the risks and consequences of different regulatory and disposal practices and infrastructures. As with the most persistent of wicked problems, sewage regulation presents unforseen problems and externalities for which there is no definitive method of either prediction or identification. Nor are there clear cut solutions to address them. And perhaps most difficult of all, sewage regulation has been beset with extreme value divergence with different stakeholders seeking different priorities, solutions and management techniques in vastly different ways.

Wicked problems are subject to great controversy over what the problem itself is and how to define it. Norton (2005:133-136) argues that problem formulation represents the key defining characteristic of wicked problems because it determines what data or information is considered relevant to resolving the problem and any proposed solution will be relative to the problem formulation favoured by its proponent. Wicked problems are wicked because they involve competition between multiple interests and, therefore, clashes of discourse. As we can see in the debate between contagionist and anti-contagionist discourses of disease and the impacts of this on the sanitary regimes advocated and adopted in the nineteenth century, defining a policy problem and its solution represents only a temporary stable point in an ongoing negotiation in which

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10 Briefly, as discussed earlier in this chapter, contagionists argued that epidemics were caused by specific contagia that were transmitted from individual to individual, usually originating from foreign sources. The most typical policy response was to declare a quarantine. The anti-contagionists advocated the filth, pyrogenic or miasmic theory which held that infectious or zymotic diseases evolved de nova from putrefying organic matter and resulted in epidemics. The most typical policy response was to remove organic matter from cities before decomposition (Tarr 1985b: 96).
each alters the dynamic and leads to a new problem formulation and new forms of competing claims and interests.

Wicked problems are wicked because there are no clear or appropriate end-state solutions and attempts to address them often have unintended consequences (APSC 2007). The desirability of particular sanitary techniques such as water borne sewerage has become part of the narrative of progress (Allen 2002:383) and civilisation and as such naturalised as relatively “uncontroversial and just a part of everyday life” (Chaplin 1999:148). Because the modern solution to sewage regulation was developed over centuries, our current practices appear natural. However, upon reflection, they seem to make less sense, as demonstrated by Berry’s (1995:1) observation:

If I urinated and defecated into a pitcher of drinking water and then proceeded to quench my thirst from the pitcher, I would undoubtedly be considered crazy. If I invented an expensive technology to put my urine and feces into my drinking water, and then invented another expensive (and undependable) technology to make the same water fit to drink, I might be thought even crazier. It is not inconceivable that some psychiatrist would ask me knowingly why I wanted to mess up my drinking water in the first place. The ‘sane’ solution, very likely, would be to have me urinate and defecate into a flush toilet, from which the waste would be carried through an expensive sewerage works, which would supposedly treat it and pour it into the river—from which the town downstream would pump it, further purify it, and use it for drinking water. Private madness, by the ratification of a lot of expense and engineering, thus becomes public sanity.  

As this quote illustrates, when dealing with wicked problems, norms and values come into play (Cutler 2009:20). Sewage regulation has a morally-governed normative function which is based on values, norms, identity and behavioural practices based on social obligation which are upheld by social sanctions such as shaming. Sewage regulation also has a taken-for-granted cognitive and normative foundation based on culturally supported belief systems. But what the above history has also highlighted is that multiple existing, emerging and potentially conflicting concerns, with all their multiple associated

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11 It has been estimated that a person produces approximately 400-500L of urine and 50kg of faeces per annum which is flushed aware with an estimated 15,000L of potable water (approximately 210% of domestic water consumption) before being combined with an additional 60,000L of greywater from the household. Thus, a relatively small amount of faeces and urine is permitted to contaminated more than 75,000L of water per person per annum (Fam 2008:593).
discourses, have emerged over time in relation to the regulation of sewage. As a result, a range of different arguments about personal morality, commercial and class security, human health and environmental protection (both anthropocentric and ecocentric) have been contested with each dominating at different times. Through this history we have seen their relative influence and important wax and wane but never completely disappears showing that despite the prevailing belief that the problem has been solved the complex normative and narrative foundations to the problem of sewage regulation ensure that there is no consensus about which norms and storylines are actually foundational or functional in this sense. As such, the regulation of sewage has all of the hallmarks of a wicked problem (Rittel & Webber 1973, Conklin 2006, APSC 2007).

The story of the origin of infrastructure solutions to problems like the management of human faeces is often reduced to a simple chronological narrative of technological advancements (Ogle 1996:154) with toilet provision characterised as “the barometer of civilisation” (Stanwell-Smith 2010:613). As a result the importance and influence of the social and cultural context that fostered the introduction of such in the first place may end up being downplayed or overlooked completely. However, it should be recognised that the adoption of new sewage management practices and technologies “were not automatic, co-incidental or inadvertent, but were intentional efforts” (Melosi 2000:8) to address existing ideas about what constituted the problem. The regulation of sewage cannot be understood simply in terms of its infrastructure and technological components, instead we must recognise that “faecal matters are always inherently political in character” (Inglis 2002:207, italics in original). As a result:

> [t]he development trajectory of an infrastructure system for collecting, treating, and disposing of waste water is shaped by multiple forces not only of technical, physical or environmental nature but also of a social, organisational and political nature (Moss 2000:80).

As Shove (2003:84) rightly notes we must recognise that although “science represents one amongst other means of legitimising social division and dirt-related discrimination…the moral and symbolic significance of dirt and disease has frequently shaped the course of scientific and medical inquiry”. However, this social dimension is often neglected, particularly in literature regarding the adoption of new sanitation and ablutions practices (Shove 2007). Such an approach assumes that the introduction of
new technologies and infrastructure will also unproblematically lead to corresponding changes in behaviour and fails to recognise that sanitary infrastructure is not simply “an isolated artefact but part of a sociotechnical landscape” (Fam 2008:594).

Through this insight we can begin to understand that sewage regulation links material technologies and infrastructure solutions with societal rules and cultural values in a two-way relationship in which the underlying social complexities of sewage regulation as both a wicked and unspeakable problem are as influential as its technical complexities (figure 3.4).

![Figure 3.4: Understanding the forces shaping sewage regulation as a wicked and unspeakable problem](image)

Through the earlier discussion, we understand that societal forces command the development of certain technologies and infrastructure to address practical and symbolic demands, while in return these technologies and infrastructure shape social practices and attitudes. Opposition to and acceptance of emerging forms of sewage regulation are not only based on traditional adherence to existing practice, but are also affected by other elements of culture (Paul 1958:1503). Modern sewage management practices and ideas evolved from a combination of factors including “politics, economics, the strive for modern standards of living and convenience…[and] religion” as much as from the contributions of medical and engineering science and a desire to improve public health (Rautanen et al 2010:190). Thus, while we can establish that sewage regulation is a wicked rather than a tame problem, such a characterisation has limitations. Recognising sewage regulation as a wicked problem seems to explain only part of what is happening. There is something else going on that wicked does not explain and would seem to suggest that sewage regulation is beyond wicked.
More than merely wicked?

At first glance it might appear that sewage regulation is, as Rittel & Webber (1973) suggested, a tame problem that has already been solved through the application of engineering technologies. Certainly, through most of the developed world, mortality and morbidity attributed to poor sanitation have been addressed through the widespread provision of water, sewer and other sanitation infrastructure. In Australia, for instance, most metropolitan houses have at least one flush toilet connected to the sewer system; there is, generally, an unconscious faith in its safe and effective operation. It is the experience of most urban Australians that, barring any major plumbing problem, one quick flush will whisk our waste away and solve the problem of its disposal. However, as this chapter has shown, through the application of Allen’s sanitation motives against the historical backdrop of Lofrano and Brown’s sanitation ages, that rather than being a tame policy problem, the problem of sewage regulation is wicked.

While parallels are frequently drawn between the efficiency of sewers and the quality of a civilisation (Schultz & McShane 1978:389) sewers should be seen as an infrastructure response to a discursive struggle in which a certain construction of the sewage problem and a corresponding solution prevailed at a point in history. For instance, as Snow’s experience showed, a range of social and psychological factors shape what counts as scientific knowledge with respect to sanitation because our understandings of the world are socially mediated (Taylor & Buttel 1991:406).

Each period of sanitation progressively introduced more regulation and surveillance into sanitation practice, taking sanitation choices out of the hands of the individual and placing them firmly in the hands of government, to the point where it has become naturalised and where increasing intervention for environmental and public health outcomes is expected. However, despite its somewhat taken for granted status today,

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12 Recognising that the idea of developed countries is loaded I mean to use the term simply as a shorthand reference to ‘developed’ as defined by the United Nations Development Programme Human Development Index (UNDP 2010) and to reflect the fact that in sharp contrast to the successes experienced in developed countries the absolute number of people in urban areas in developing counties that do not have access to adequate sanitation continues to grow (Inglehart 1995:58). Today it is estimated that 2.5 billion people in developing countries lack access to adequate sanitation and nearly 1.2 billion face the daily indignity of open defecation (FAN 2010:1). It has been reported that an estimated 3.5 million people, 1.5 million of whom are children, die each year from inadequate access to clean drinking water and from inadequate sanitation infrastructure (Schuster-Wallace et al. 2008:8).
state attempts to regulate the disposal of human faeces were not always well received. Although both the sanitary reformers of earlier times and the policy makers of today hold up the flush toilet and the sewer as the exemplar of sanitary progress, the sewer was frequently represented in the rhetoric of sanitary resistance as “an instrument of social chaos” which combined with sanitary legislation would result in a loss of control over one’s home and body (Allen 2002:384). Sanitary legislation was seen to be a threat on the grounds that government intervention in matters of sanitation represented a violation of privacy and domestic autonomy and encouraged unwarranted and unwanted government interference in private life. It was believed that once this precedent had been established it would be impossible to limit the government’s sphere of action. While “many Victorians believed that sweeping public health reforms could fuel physical and moral regeneration of the urban poor, it is also true that others responded to this reforms with fear, anger and suspicion” (Allen 2002:383). To the opponents of sanitary reform “the landscape of the past, filthy and unregulated as it was, seemed preferable to and considerably less threatening than the sanitary landscape of the future” (Allen 2002:383-4).

In developing and enforcing sewage disposal regulations decisions are often made that effect the interests of “vocal sub-pollutions…unleash[ing] political forces that put entire departments under siege” (Berg 2004:40). The cleansing of the urban environment and the introduction of new sanitation regimes and approaches has been a contested process at both the ideological and political level (Hamlin 1998; Allen 2008) with reformers facing local resistance to these attempts to regulate excrement in both public and private spaces (Jewitt 2011a; Laporte 2000).

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13 For instance, the shift in public and legislative opinion against the regime of collection and cartage from cesspools toward the installation of metropolitan sewer systems and other sanitary and public health reforms in Victorian England was perceived by some to be an attack on domestic autonomy (Allen 2002). This resistance was evident in response to mandated changes in practice, infrastructure and technologies. For example, despite the state aims of improving the problems of spreading infection through common lodging houses and cellar dwellings, there was significant opposition by the owners of cottage properties in England to moves to establish local Health Boards, forcibly remove privies places in improper situations and remedy poor ventilation (Keith-Lucas 1954:292).
From the public resistance to the introduction of fees for the use of latrines at the Tuileries in the late-eighteenth century (Gray 1940)\textsuperscript{14} to the civil uprising in mid-eighteenth century Madrid, inspired in part by the introduction of sewage disposal regulations (Kozak 2006)\textsuperscript{15}, the forced introduction of changes to sanitary practices has always been contentious. Acts of public defecation or public disposal, outside of state sanctioned infrastructure like sewers, can be difficult to police (Jewitt 2011a:3) and dissenters are portrayed as contributing little more to the debates than an uninformed, uneducated nuisance based on little more than irrational and unsophisticated emotions like fear and disgust. But what such an understanding fails to answer is why it is still easier to talk about sanitation infrastructure than the issues behind sanitation that it responds to (Rautanen et al 2010:175). The simple answer, as this chapter has demonstrated, is that sewage regulation is more than wicked, it is unspeakable.

\section*{Conclusion}

The brief socio-historical overview presented in this chapter shows how the regulation of sewage has been shaped by such forces as: changes which occurred in the understanding of infectious disease (from miasmas to Pasteur’s microbes), the public perception of faeces (from nuisance to valuable agriculture resource to dangerous substance that needs to be removed), and views on health responsibilities (from individual to public responsibility); and normative and behavioural changes in the role perceptions of policy makers, political ideology (from minimal, liberal involvement in society to active interventionism), and the morality of waste (from the normality of dirt to the ideology of cleanliness) (Geels 2006:1079). While these changes may have had significant material consequences they also saw the transformation of “the management of a life sustaining human function into a psycho-social taboo topic” (Hepworth 2000:xii).

\textsuperscript{14} As a result of indiscriminate defecation practices the terrace of the Tuileries became so fouled that the superintendent of the royal grounds installed a latrine and charged an admission fee of two sous. Gray (1940:942) recounts that “enraged at the high price, the public removed their excretory affections to the Royal Palace grounds, forcing the Duc d’Orleans to construct a dozen privies, which fortunately were better patronized.”

\textsuperscript{15} Kozak (2006) alleges that King Charles III accused the protestors of behaving like children when their faces were washed when he introduced sewer canals and prohibited the custom of throwing the contents of chamber pots out of windows and into the streets below. However, it should also be noted that the imposition of sumptuary edicts against the working classes (Noel 1995) and the unpopularity of the King’s favoured Neapolitan minister, the Marquis of Esquilache (Petrie 1977) contributed to provoking this riot.
Due to its unspeakability excrement is negatively charged in Australian society and verbal, olfactory and physical encounters with it elicit feelings of disgust and embarrassment; even perceived or imagined contact with it causes offence. This makes it difficult for excrement to be the subject of policy making, particularly in emerging debates concerning the recycling of wastewater or the oceanic disposal of sewage waste from outfall pipes or boats. In the next chapter I develop the idea of sewage regulation as an unspeakable problem, defined as a wicked problem which is further complicated by high levels of verbal proscription and psychosocial sensitivity. I also present a framework for understanding unspeakable problems with an excremental base.
It informs history, culture, and entire social structures. How we deal with emptying our bowels impact everything from our most intimate relationships to revolutionary upheavals of powerful empires and the ecological balance of the earth.

Paul Provenza (2007:1)

CHAPTER FOUR

Sewage regulation as an unspeakable problem

Introduction

In the previous chapter I demonstrated that while sewerage provision may be an intermittently wicked problem that may periodically give the appearance of being solved, the regulation of sewage is an unspeakable policy problem. In this chapter I develop this idea of the regulation of the disposal of human faeces as an unspeakable problem. Unspeakable policy problems often elicit disgust responses because they invoke ideas of physical or tangible pollution or moral and societal filth and often involve the regulation of intimate processes or bodies. These psychosocial aspects surrounding pollution potential make unspeakable problems, particularly excremental ones, problematic and difficult to regulate and difficult to speak about. In this chapter I present a framework for understanding unspeakable problems with an excremental base which highlights the symbolic, practical and material elements of human faeces in the way sewage regulation is construed as an unspeakable problem based on the construction of human faeces as matter out of place.

Unspeakably wicked?

Some policy problems can be characterised as being merely wicked. Take, for instance, the complicated, messy and challenging issue of climate change where there is limited agreement on the nature, scale, causes and likely consequences of climate change and even fewer on its solutions. Although this situation and its potential global impacts has led to some labelling the problem “super wicked” (Lazarus 2008) or even “diabolical” (Garnaut 2008), these debates form the basis of its high profile in the popular press where the need to respond to or mitigate climate change is championed by scientists
alongside prominent politicians and celebrities. As the subject of countless international conferences and conventions, high profile documentaries and articles, the wicked problem of climate change may be far from resolved but it is certainly being discussed. Some wicked problems, however, are further complicated by the fact that they are difficult to speak about at all.

Some wicked problems are, or have been in the past, unspoken. Unspoken problems are not talked about because they are often considered to be implicit, understood or resolved. Where this type of problem is unspoken, it is generally unspoken by unconscious choice because it is considered that there is no need to formally articulate or debate the problem because somebody else, generally government, is taking care of it. Many unspoken wicked problems were once considered tame and have in the past included the provision of infrastructure and services which provide benefits to the public in general rather than to specific individual citizens such as municipal water and sanitation services, transport infrastructure and services, and public housing (Rees 1989).

In today’s political climate, the public is less accepting of the idea of such unspoken policy problems and are demanding the opportunity to participate in decision making and broader discussions around many issues previously thought to be tame through consultation and other deliberative mechanisms. These wicked problems are now generally subject to extensive public debate and consideration of a range of social, environmental and other issues. There are, however, other wicked problems that are unspoken because they are considered too objectionable or offensive to be discussed. As such, these policy problems are better described as being unspeakable in that they are not able to be spoken due to the high levels of sensitivity around them. Wicked problems which exhibit high levels of both verbal proscription and psychosocial sensitivity have a tendency to become unspeakable (figure 4.1).
Psychosocial refers to factors that are both social and psychological in origin and the ways in which the two may combine (Berry et al. 2007:1). Psychosocial issues possess a significant moral dimension, involve the regulation of intimate processes and bodies, and, importantly, encompass strong elements of symbolic pollution. As a result, high levels of psychosocial sensitivity impact on the way that policy problems can be thought about or are reacted to, either as an individual or as a society, including the ways that these issues are talked about. As a result, these policy problems are also often characterised by varying degrees of verbal proscription, which is a different level of being able, or indeed unable, to talk about the issue.

High levels of verbal proscription restrict the discussion of these problems as it generally requires that they be discussed in an abstract manner using euphemisms and circumlocutory speech. Some policy issues are unspeakable due to their sacredness (particularly in relation to issues with a religious or spiritual element), but in the case of most unspeakable problems, it is generally because they fall at the other end of this spectrum, the profane, and are judged as being indescribably or inexpressibly bad, objectionable and disgusting and therefore considered unfit or not permitted to be spoken of.

The higher the levels of verbal proscription and psychosocial sensitivity, the more problematic these problems can become. The way we talk about a policy problem reflects our underlying attitudes and beliefs which both define the problem and shape possible solutions. When those attitudes and beliefs are such that the problem cannot be talked about directly, because there is no acceptable language for discussing the problem and a societal repugnance of the issue at hand when the problems are quite literally thing
that we don’t like to think about and have difficulty talking about, they may be particularly intractable. A combination of these factors can have significant impacts on the ability of these policy problems to be discussed in a fulsome manner, if at all, and attempts to bring these issues into policy making often results in very emotional responses. If it is true as Brennan (2009:50) suggests that that which cannot be named cannot be legislated; unspeakable wicked problems can therefore become beyond the rule of law.

Pollution: at the intersection of emotions and the law

Because emotions about unspeakable matters are often strong, the regulation of unspeakable problems is rarely as straightforward as it may seem. Take for example the seashore sanitation ritual that takes place on a daily basis at popular European holiday destinations, in which the shoreline is swept clean of anything remotely “smelly, rotting or creepy-crawly” from the last high tide (Pearce 1998:32). As exaggerated as this response may seem:

In places with modern public sanitation technologies, the symbolic moral concerns that themes of filth and marginalized places index are as important as actual threats to public health (Modan 2002:490).

Attitudes about the pollution potential of different objects are fundamental in framing our responses to policy problems, and indeed in framing the policy problems themselves, even with a substance as benign as seaweed. Although this cleansing process strips the shore of the diverse bio-mass vital to the survival of seaside organisms, this response is deemed necessary and appropriate because the seaweed and other flotsam and jetsam are perceived as pollution, despite being part of the natural state of the shoreline.

A pollutant originates outside the environment it pollutes. An environment becomes polluted only when something is added to it or is meant to be immediately ejected from it. Clearly seaweed in the ocean (where it belongs) is not pollution but seaweed on the European beach (where it is deemed to be out of place) is pollution that needs to be removed. Thus, for there to be pollution there needs to be an understanding of a systemic order or an environmental norm. Only then is it possible to detect something that is out of place (Nagle 2009:55).
Nagel (2009:55) notes that while pollution is socially constructed, in part due to discourses as work, all pollution beliefs share a common theme in that they focus on particular environments and the pollutants that enter and are believed to pollute these environments. However, each society, and individual, determines what they regards as a pollutant and which environments are in need of protection (Nagle 2009:29). In this example, while we might not necessarily perceive seaweed to be a pollutant or in need of removal, in this instance, it has been constructed as an environmental problem worthy of attention. Consequently, environmental problems must be understood as social processes despite any material basis they may or may not have.

What is considered to be pollution varies according to social and cultural values (Pile 1996:90), ideas of pollution have “material, cultural, social, and emotional consequences” (Isaksen 2002:803). Just as this jetsam threatens the clean and proper bodies and minds of citizens using the beach, it also unsettles the ordered world of policy making which has to respond to these pollution beliefs and claims. Because “the description of pollution as a violation of boundaries animates environmental law” (Nagle 2009:50), it superimposes artificial boundaries upon the environment and limits the meaning of pollution to certain parts of the environment such as the air, the water or the land (Nagle 2009:50&57). This is particularly the case in liminal spaces such as the coastal zone, ambiguous spaces like the ocean and heterotopic spaces like the boat. Moral concerns play an important role in understanding pollution in the law because pollution is often about offense as much as it is about more tangible environmental or physical harms, in fact, as Nagle (2009:74) notes “sometimes environmental pollution is only a moral issue” (emphasis in original).

**Setting up excrement as unspeakable problem**

A number of examples of wicked policy problems which fall into the realm of unspeakable problems are excremental in nature such as water recycling (Mikhailovich 2009), sewer mining (Logan 2008) and the public funding and exhibition of scatological art (Hadolt 1999; Grant-Smith 2010). Disgust and a view of excrement as dirt is an important component of our responses to these unspeakable problems. The idea of physical or moral pollution present in these examples accounts partially for our desire to physically and mentally avoid what we deem to be polluting; however, to understand
why excrement is considered so undesirable and polluting it is useful to revisit the pioneering work of cultural anthropologist Mary Douglas.

Matter out of place
Sigmund Freud, the father of psychoanalysis, parenthetically and somewhat enigmatically suggested that “dirt is matter in the wrong place” (in Labrie 2002:268). The call to explain this difference was taken up by the “mother of social anthropology” (Curtis 2001:75), Mary Douglas, who sought to understand what makes certain things clean or dirty.

Douglas does not give “ultimate explanations” (van der Geest 2007a:385). Instead, she argues that what is considered dirty, or polluting, is relative and depends of a system of classification and location within that system. Being dirty or clean, however, is not just a matter of location. It is not that food is clean on a plate and dirty on the floor, rather it is that it should be on a plate and not strewn across the floor or smeared across a bench (Wuthnow et al. 1984:87) or as Douglas (1966) succinctly articulates it, like Freud before her, the problem is that it is matter out of place. In the social order there is, as they say, a place for everything and everything has its place. The logical extension of this maxim is the crux of Douglas’ argument, which suggests that matter which is out of place becomes “deviant, odd, strange, or criminal” (Wuthnow et al 1984:88), in what Foucault (1990) might refer to as how discourses push us toward the norm. Or, in the case of human faeces and other substances considered to be pollution, it also becomes abhorrent, embarrassing, disgusting and unwelcome, perhaps even evil.

The strength of the disapproval toward matter out of place depends on the substance of the matter itself, the place where the object is (or the activity takes place), the manner in which its presence is communicated and the identity of the person who is directly associated with the matter or activity; or as van der Geest (2007a:386) describes it “what is or has been the social life of the dirty matter”. Pollution, like disgust, is dependent on both meaning and context (Miller, 2004). Extending this argument in Coprophilia, McLaughlin (1971a) notes that it is more than matter out of place that makes things dirty. It is matter in the wrong place.

A pile of dung, to the dung-beetle, is food and shelter for a large family; a pile of dung, to the Public Health Inspector, is a Nuisance…Lipstick on a
girl's lips may make her boyfriend more anxious to touch them with his own lips; lipstick on a cup will probably make him refuse to touch it (McLaughlin 1971b:1).

However, Kubie (1937:390) questions such an assertion suggesting that “surely it is not merely a translocation in space which makes the difference between honey and slime, between food and faeces, or a thousand other similar and perplexing contrasts”. It would overly simplistic to suggest that being clean or dirty is simply a matter of location. Instead we tend to find things polluting that are cling to us.\(^1\) Pollution and other dirty things “hold on to us even when we should like to let them go, and like an unpleasant travelling companion or an obscene telephone caller, seem to be trying to involve us in themselves” (McLaughlin 1971a:2). Like Hawkin’s (2001:6) plastic bag—“unequivocally bad…matter of place, contaminating the purity of the natural with its sticky existence”—McLaughlin (1971b:2) describes this inability to let go as the feeling of pollution, “the kind of experience where something dirty has attached itself to us and we cannot get rid of the traces, however hard we try”.

It is this transgression of boundaries that Kristeva (1982) argues is at the heart of the abject. The abject disturbs identity, system and order and provokes fear and disgust because it exposes the border between subject and object; self and other. This border is fragile. The abject threatens to dissolve the subject by dissolving the border. She famously describes this through the visceral feelings of disgust directed toward the unctuous skin which forms on warm milk.\(^2\) The abjection experienced in this instance is similar to Sartre’s (1969) characterisation of the *viscace* (slimy).\(^3\) The response to this

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\(^1\) Feminist scholars (such as Martha Nussbaum, Sara Ahmed, and Elizabeth Grosz) declare that disgust and the objects of disgust (i.e. that which is found disgusting) is often imbued with negatively charged feminine characteristics (such as being slimy or oozy or permeable). Other qualities contributing to assumptions of dirtiness and leading to disgust include softness, wetness, sliminess, hairiness, older age, pigmentation, and being in a cavity, cleft, hole or pit rather than on a prominent or out-jutting part of the body (Ross, Hirt & Kurtz 1968:304).

\(^2\) “When the eyes see or the lips touch that skin on the surface of milk—harmless, thin as a sheet of cigarette paper, pitiful as a nail paring—I experience a gagging sensation and, still farther down, spasms in the stomach, the belly; and all the organs shrivel up the body, provoke tears and bile, increase heartbeat, cause forehead and hands to perspire” (Kristeva 1982:2-3). Smith (1998:33) notes that the “beauty of this example is that, avoiding abstraction, it relates the abject to the body and in doing so illustrates the power and importance of what is happening in the psyche”.

\(^3\) “To touch the slimy is to risk being dissolved in sliminess” (Sartre 1969:610).
encounter with pollution, this abjection, is a feeling of anxiety and disgust to which one “can respond only with aversion, nausea and distraction” (Longhurst 2001:28).

According to Kristeva “it is…not a lack of cleanliness or health that causes abjection but what disturbs identity, system, order. What does not respect borders, positions, rules” (1982:4). It is because “dung signifies the other side of the border, the place where I am not and which permits me to be” (Kristeva 1982:3). As a result:

Abjection is a reaction experienced when an individual encounters abject objects. These objects could be such this as feces, vomit, urine, blood but may also be individuals, such as the disabled, the homeless, the mentally ill, the incarcerated, and so on. In short, the abject can be anything or anyone that does not fall within the established boundaries of the clean and normal (Holmes et al 2006:310).

While such an explanation accounts for the classification of pollution in general, “if there is anything dirty in Mary Douglas’ sense of the term, it is human faeces” (van der Geest 1998:8). It is this all-embracing idea that excrement is the archetypical pollution that prompted Douglas’ provocative question “Why should bodily refuse be a symbol of danger and of power?” (1966:120). Cohen (2005) proposes that it is its intimacy and proximity to the human body that helps to account for the power of excrement. Human faeces represent disorder and are marginalised because although “naturally present”, for the most part they are, or at least should be, “socially absent” (Persels & Ganim 2004:xiv). As with other abjections it is this distinction and the transgression of borders and boundaries (Grosz 1989:75) that accounts for the strength of emotion surrounding all kinds of bodily excrement.

Defining pollutants involves concepts such as purity and risk which are “constructed through historical, anthropocentric, and socially created measures of environmental quality” (Keeling 2004a:70). Following this line of thinking, pollution is therefore about boundaries and pollution beliefs which reinforce the social boundaries society establishes by designating which things are allowed in which places. Consequently, dirt or pollution signify “a breach of a (preferred) order” (Modan 2002:490).
Human faeces are almost universally out of place except for those places specifically designed to hold it, such as that toilet, but even here they are only temporarily in place (Carolan 2007:402). Indeed as van der Geest (2007a:382-383) notes:

Are faeces ever *not* out of place? Can they be clean and orderly? Is shit not always dirty, by itself, by its nature, wherever it is:* in a lavatory, in the sewer, in a nappy, in the street, on a sandwich?... Faeces in the pipes of the sewerage system are just dirty, but on a sandwich that I am supposed to eat they become unspeakably disgusting. The problem, however, lies with the faeces in the sewers. Are they not in the right place and therefore clean? (emphasis in original)

It is this kind of universal problem with excrement that prompted Patton (2007:14) to reject Douglas’ view that dirt (or pollution) is purely a socially constructed category; which she refers to as “an arbitrary indicator of position on a graded hierarchy that lacks any corresponding objective reality”. However, while sewage pollution may have a material reality (in terms of the public health or ecological impacts for example), it nonetheless only becomes known through human processes such as scientific knowledge, laws and regulation, and media attention. So, like most environmental problems, while sewage pollution has a real ontological status despite our knowledges of it; it must be primarily understood as a social phenomenon stemming from social processes which construct the presence of excrement both as pollution and as a problem process (Hannigan 2006).

Human faeces are not merely a by-product of bodily functions. Rather, they pose both a physical and a psychological threat and carry a symbolic load (Douglas 1966:3) involving concepts such as purity and risk which are “constructed through historical, anthropocentric, and socially created measures” (Keeling 2004a:70). Freud (2004:46) notes:

There is an unmistakable social factor in the cultural striving for cleanliness too, which was later justified on the grounds of hygiene, but manifested itself before this connection was appreciated. The urge for cleanliness arises from the wish to get rid of excrement, which has become repugnant to the senses.

However, does it matter whether we find faeces abhorrent because we find them disgusting or because they may be harmful to either our health or to the health of the environment? From a policy making perspective the answer must be yes, particularly
when dealing with such a wicked problem as the regulation of sewage, because such a
distinction provides clues as to why people respond the way they do to certain policies,
the potential for behaviour change and the means by which such change is most likely to
be achieved. Such an understanding advances the need for the contextually and culturally
specific approaches that may be required to affect such change because it places
excrement, and constructions of excrement, as the forefront of policy inquiry and
recognises not only the important place of the subject matter in the policy process but
also the implications of its presence. Recognising sewage regulation as an unspeakable
problem allows for the design of processes which both acknowledge and accommodate
its unspeakability.

**An unspeakable framework for the understanding the excremental**

Building on the work of Douglas, Elias, Bourdieu and others, scatological sociologist
David Inglis provides a framework which helps to begin to consider the regulation of
the disposal of human faeces as an unspeakable problem. This framework explores the
complex interrelationship between the ways we think about, talk about and dispose of
human faeces, and the infrastructure upon which these practices depend. Inglis (2000:60)
refers to the assembly of these as the *modern mode of excretion*. The mode of excretion is
comprised of the *modern faecal habitus* (comprising attitudes about excretion and the
excretory practices generated on the basis of these attitudes and *vice-versa*) and the *means of
excretory disposal* (comprising both the general and intimate means of disposal of
excrement) (Inglis 2000:3-5). Inglis’ taxonomy can be further elaborated into three
refined elements with corresponding sub-elements (table 4.1)
Thinking the unthinkable: unpacking the symbolic element

The symbolic element of Inglis’ framework encompasses the evaluative symbolisation of excrement and attitudes regarding the excretory capacities of the body and the excrement produced (Inglis 2000:210); or expressed less delicately, the ways we think about shit and shitting. According to Inglis (2000:7), the development of modern excretory mores, societal norms, customs, and values depended on changing attitudes toward the human body, an increasingly negative view of human faeces which saw them as dirty and disgusting, and correspondingly greater levels of regulation being exercised over defecatory practices.

While what is disgusting varies from culture to culture and individual to individual, it has been argued there are some prototypical objects of disgust and that faeces is one of these (Curtis & Biran 2001; Nussbaum 2006). Disgust is characterised by a desire to withdraw from and repel objectionable sensory input be it sight, smell, sound, feel or taste (Woody & Teachman 2000:293) with its gustatory emphasis linked to its evolutionary adaptive value of protecting the organism from ingesting potentially harmful substances (Haidt,
McCauley & Rozin 1994). Those subscribing to this belief consider that such disgust is a natural and instinctual response that pre-dates culture and, as such, cannot fully be explained as a cultural construction or product (Curtis 2007).

While there is likely some degree of truth in this argument, it must be acknowledged that there is also a strong link between feelings of disgust and moral condemnation (Schnall et al 2008:1105). Rather than simply being a physical and emotional response to a sensory stimulus, disgust should also be understood as a moral emotion which functions to “facilitate evaluations of good and bad, rightness or wrongness, and to motivate and direct behavior away from the bad” (Looy 2004:222). As such:

Disgust reads the objects that are felt to be disgusting: it is not just about bad objects that we are afraid to incorporate, but the very designation of ‘badness’ as a quality we assume is inherent in those objects (Ahmed 2004:82).

Such a view recognises that the notion of faeces as a “universal disgust substance” (Rozin, Haidt & McCauley 2000:579) is not necessarily a question of hygiene or health or nature but also of culture (Weinberg & Williams 2005:316) because culture largely shapes what society deems to be disgusting (Olatunji & Sawchuk 2005:933). As shown in the earlier discussion, attitudes toward excrement are as much a result of social and cultural factors, as they are of its medical, physical and environmental characteristics.

It has been argued that we find excrement disturbing because it reminds us of our animal nature (Haidt, McCauley & Rozin 1994), however, as shown in figure 4.2, animal wastes, particularly those produced by herbivores, do not tend to disgust as intensely as human wastes (Miller 1997:49). Because animals play important roles in human relationships and human understandings of nature and the natural it would be unusual if these did not affect our attitudes toward animal excrement (van der Geest 2007a:392). Native animal scats for instance are generally tolerated and usually not considered to be disgusting. The presence of native animal scats would hardly prevent us from enjoying a picnic in a wilderness area (McLaughlin 1971b:5) because while not desirable, they are by no means out of place. Even the dung of herbivorous animals is treated with a level of ambiguity when encountered in rural spaces or used in agricultural or urban gardening applications. We might not like it but we tolerate and understand its presence because
cowpats “are in place” (van der Geest 2007a:392) when on a farm or being used as manure-based fertiliser. However, the faeces of all animals is not equal. The excrement of dogs for instance is considered to be disgusting. This may be because instead of reminding us of our animal nature as suggested by Haidt, McCauley and Rozin (1994), dogs as “the archetype of affectionate fidelity and unconditional love…are more human than animal...[and] are unconsciously assumed to have virtually the same thoughts, feelings and desires as people” (Serpell 1995:2). Thus dogs’ faeces may remind of our own and we may attribute some culpability or intention in their choice of places to defecate.

Menninghaus (2003:2) argues that excrement is disgusting because “disgust brings eminent affective powers to bear: it processes elementary civilizing taboos and social distinctions between what is foreign and one’s own”. Thus, while we find all excrement disgusting, we tend to find the faeces of others even more disgusting than our own.⁴ Van der Geest (2007a) suggests that depending on the degree of closeness the faeces of someone known to us, and with whom we have an intimate relationship is less disgusting that the faeces of strangers. Citing the example of attitudes of mothers towards what I have termed *loved shit* van der Geest (2007a:387) notes:

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⁴ Freud (2004:47) has argued that “human beings hardly find the smell of their own excrement offensive—only that of others”. Russ and Tanner (1978:44) also provide an excellent example of this in Victorian MP Clyde Holding’s infamous comment “I don’t mind swimming in my turds, but I object to swimming in yours.”

⁵ I must confess that as a mother of two I find van der Geest’s idea that mothers don’t find the excrement of their children disgusting to be a somewhat romantic notion that absolves men of their child care responsibilities because women are believed to be conditioned to find such care work less disgusting. Speaking from experience this shit work it is not something that one enjoys. Instead as one of the nurses in van Dongen’s (2001:208) study of nurses attitudes to the embodied aspects of the their care work noted “It isn’t something to yodel about, but I have to do it, it is part of what I do”. I return to these ideas of naturalised gendered roles in dealing with faeces in a range of domestic and other situations in Chapter 6.
A mother will experience little or no aversion when dealing with the faeces of her baby. The baby is still part of herself and cleaning the baby is almost the same as cleaning herself. The father is likely to be less close to the baby and may in that case slightly dislike the task of handling dirty nappies.

On this continuum of faecal disgust the anonymous shit of unknown others is less disgusting that the faeces of someone one knows but with whom one is not in a close relationship is more disgusting and repulsive. Van der Geest (2007a:390) suggests this may be because “complete strangers have no identity…the anonymous character of the meeting is reassuring” because the shit does not have a face. However, the faeces that are known and can be named as belonging to an individual with whom we do not have a close relationship is the most confronting and disgusting of all.

Because faeces are evaluated as being both morally and hygienically dirty (Weinberg & Williams 2005:316) the desire to avoid or hide excrement has resulted in the denial of the body’s excretory capacities (Inglis 2000:43). As Bates (1967:9) notes “[w]e produce shit more or less regularly, but we dislike to admit this openly and we cannot talk about it with any equanimity. We would much rather pretend there was no such thing.” Or at the very least that we don’t shit. This idea of immaculate defecation sees the biology and psychology of disgust merge in our human desire to establish “borders of the self” (Rozin & Fallon 1987:26). Miller (2004:177) describes this as a form of body politics where bodily boundaries infer geographical borders which invade our bodily, social and cultural spaces. But, and here’s the rub,

To have a body, one must have openings; material must enter and exit the body. The denial of the body’s permeability and its abject products is fundamental to modern society, but of course shit happens. Managing both what happens and the denial that it does has been at the heart of urban planning for most of the late modern period. (Gilbert 2007)

As with other abjections, it is this transgression of borders and boundaries (Grosz 1989:75) that accounts for the strength of emotion surrounding excrement. This civilising process involved “restricting shit to discrete corners of our lives and minds, banishing it from our educated, polite discourse” (Persels & Gamin 2004:xix) and making it “all but invisible to public consciousness” (Cohen 2005:xi). A prime example of the desire for immaculate defecation which underpins the symbol element of Inglis’
framework for understanding excremental matters is the oblique references to toilet facilities as gents or ladies (Ciochetto 2003:214) or even more obliquely still the powder room.

**Acting on abjection: unpacking the practical element**

The way that a society evaluates excrement shapes the ways defecation may be legitimately carried out in that society (Inglis 2000:27). Because excrement is constructed both as pollution and polluting we behave in certain ways to both conform to social faecal norms and to avoid embarrassment. It is these practices that are the project of the practical element of the mode of excretion. The practical element of the mode of excretion is dependent on defecatory, sensory and verbal practices which determine the socially acceptable ways to defecate in terms of time, location and receptacles. These practices “reflect the degree of emotional repugnance that exists for the sounds, smells, and sights of defecation” (Weinberg & Williams 2005:316). As such, appropriate defecatory practice requires that we undertake such matters in private and avoid faeces whenever we can.

As Braverman (2009:70) notes “values governing toilet conduct are deep-seated and taboo related”. We are motivated to completely remove excrement from our presence due to its offensiveness, perceived threat of contagion and disgusting nature (Olatunki & Sawchuk 2005:941). Considerable effort is made to prevent direct physical contact with excrement such as the use of toilet paper. This avoidance is also extended to sensory practice which is characterised by relatively, and increasingly, low tolerance for olfactory, visual or auditory encounters with excrement. As such, appropriate defecatory practice demands that faeces must be completely disassociated from the individual generating it. As such faeces “should be invisible, unscented and above all anonymous” (Bray no date). This anonymity demands that individuals take care to not allow another person to hear them defecate or to smell their faeces (Weinberg & Williams 2005:324).

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6 Events such as breaking wind in public violate conventions and therefore the sound and the odour we cause embarrass us due to their potential to arouse disgust in others (Weinberg & Williams 2005:316).
Brant (2008:550) notes that Auden’s line “private faces in public places are nicer than public faces in private places” is applicable to smell. The same could be said of private faeces in public places. While we are enjoined to always take care to remove any traces of excremental presence there is less discomfort if:

…we do not see the person whose defecatory traces we smell, see or hear. We feel disgust but the emotion is less threatening because the actor remains out of sight. It is easier to take the matter off our mind because there is no face attached to the faeces. The intrusion is superficial (van der Geest 2007a:391).

This physical and sensory avoidance of excrement through olfactory euphemism is reinforced by complementary practices to disguise the presence of faeces such as deodorisation (Inglis 2000:53) or reodorisation (Brant 2008:546) where the smell of excrement is replaced with that of a simulated Ocean Breeze™ or Tropical Garden™ to “mask and destroy unpleasant odours” (CCI no date:2).

Defecation is an intimate and private function. Thus “after the process has been thus removed from sight—if not from the nose—its produce is also shoved out of reach. Defecation and urination are hidden in the closet” (Illich 1985:57). Modern rules about excretion dictate that it should be carried out according to established times, locations and receptacles, that it should be done in private and that faecal odours and sounds be minimised or masked (Weinberg & Williams 2005:317). However, it also has impacts on the acceptable ways of speaking (or not speaking) about matters involving faeces as we seek to distance ourselves from our own and others’ bodily functions and waste (Gurney 2000:61). This verbal distancing relies on verbal practices regarding excrement and defecation that are indirect, circumlocutory and relies heavily on the use of euphemism and avoidance which is based on our negative feelings toward faeces (Inglis 2000:53). 7 Through writing or talking about it, excrement:

…becomes a matter out of place; it disturbs the order of proper behaviour…Faeces out of sight, out of conversation and out of mind are clean. Contamination does not only work physically, it also takes place in metaphoric and metonymic ways (van der Geest 2007a:384).

7 It is also for this reason that references to excrement can be powerful when used to denigrate individuals, acts and ‘things’ (Inglis 2002).
Abject infrastructure: unpacking the material element

Just as excretory practices are based on the symbolic meanings that we attribute to excrement, so too are the material substructure upon which accepted defecatory practices depend (Inglis 2002:211). The material element of Inglis’ model considers both intimate means of disposing of excrement such as toilets and chamber pots and more general means of storage and removal such as sewers, cesspits and sewage holding tanks (Inglis 2000:58). It also considers the organisations which provide and operate this infrastructure.

Notions of privacy are an integral part of the practical element of faecal habitus. Reflecting low levels of visual and olfactory tolerance, defecatory practices must be carried out in designated private locales (Inglis 2000:53) in which privacy is defined in terms of “not being heard, not seen, and not sensed evacuating” (Srinivas 2002:383). The material element, through the space of the toilet and toilet infrastructure, is integral to acting out ideas of privacy and has a crucial role to play in the management of bodies (Gurney 2000). The symbolic elements of waste also come into play, making the toilet a “marginal and dangerous place because it is representative of our embodiment and our pollution” (Gurney 2000:66).

Carolan (2007:398) notes that “the quest, particularly in the West, to render faeces invisible (and indorous) has been very successful”. Ways that we try to deny our excretory capacity and hide the evidence from our own and others sight and mind include putting toilets in separate rooms with locking doors, opaque lids on toilet seats, hiding plumbing pipes, and using deodorisers and fragrances to mask odours. Part of the desire to hide evidence of excrement and defecation can be seen in the form of sanitary appliances we use and the “unforgiving sparkle” (Lupton & Miller 1992:3).

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8 Although it has been argued that seeking privacy to defecate is an instinctual act it is important to remember that the notion of personal privacy evolved over centuries and is directly tied to both economic prosperity and religious notions (Soifer 2000).

9 Featuring a digital control with buttons to open the lid and/or seat; spray front or bottom with water; set water temperature and pulsation; warm the seat; activate blow dryers and catalytic deodorisers; and create noise cancelling sounds such as artificial flushing or music the popular Japanese toilet brand the Washlet epitomises our urge to avoid excrement and the denial of the shitting body (Chun 2002) and serves in many ways to entirely erase the corporeality of toilet acts (Dutton, Seth & Gandhi 2002:140).
caused by the traditional extensive use of white porcelain within bathrooms and household cleaning products promoted as maintaining it.

While many have positive or at least neutral feelings toward the bathrooms in their own homes, when it comes to public restrooms, many have negative feelings towards them. And, even if we are neutral about our own bodily eliminations, we are certainly less so about others, especially if we see what is essentially supposed to be private or unseen (Soifer 2000). Two key ideas are at play here are privacy-from and privacy-for. The former arises most often in public facilities; we don’t want to be around others defecating, so it becomes essential to protect ourselves from them. Privacy-for, on the other hand, concerns a discreet location; discreet identification/signage; the use of visual barriers or compartments; [and] the use of masking sounds, most commonly piped in music (Soifer 2000).10 Public toilets that are seen to be clean and odourless (or smelling of cleaning products) instil confidence while “those that can be seen to be dirty or have the lingering odour of a previous visitor are endured usually only out of desperation and a lack of alternative facilities” (Bichard, Hanson & Greed 2008:79).

The way we treat excrement reflects our attitude towards the body and its functions (van der Ryn 1995:12). Waste management practices, such as the use of storage facilities or vessels and the dictating of approved disposal areas and techniques, will only be demanded by a culture if the waste is considered to be either physically or symbolically contaminating, or if there is an emphasis on removing the waste from the social purview (Inglis 2002:211). However, modern sanitation infrastructure such as sewers and the flush toilet have conversely influenced our perception of which needs should be satisfied in the sanitation context. These expectations include an expectation that individuals will not have to smell, see or deal with their own and other people’s faeces (Rosenquist 2005:344).

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10 Many upmarket hotels include infrastructure, fittings and fixtures that recall other non-toileting spaces such as sitting rooms or bedrooms.
Sanitation infrastructure matters politically both as a set of materials and as a discursive object (McFarlane 2008:415). If water use is largely a practice of “inconspicuous consumption” (Shove & Warde 2002:230), sewage disposal afforded by contemporary toilets and sewer systems is one of both inconspicuous and unconscious disposal. The infrastructure we employ aids our efforts to distance ourselves from the waste we produce, assisting us to put “space between the self and the fecal product” (Weinberg & Williams 2005:323). Or in other words, in facilitating this separation or distancing from our waste, the infrastructure used to enact the intimate and general means of excretory disposal “make[s] epistemologically invisible the destinations and consequences of what we excrete” (Cortez 2005:13). Sewers, and other material elements of waste management, serve to further divorce us from our excrement. Appealing to the symbolic ideals of cleanliness and hygiene and attending to the practical ideals of sparing the user from having to view, come into contact with or handle their own and others’ waste, sewerage infrastructure “makes invisible what our bodies make universal” (Praeger 2007:48). This is particularly evident in the use of underground sewer services which serve to further separate us from the waste we make. The invisible sewer secretly whisk our waste away; unseen, unthought of, unspoken, affording us “the sense of removal of as well as from filth” (Chun 2006: 168, emphasis in original).

**Geographies of resistance to sanitation**

Based on this discussion, the relationship I envisage between the elements of the mode of excretion is best expressed in the image of a Möbius strip which clearly illustrates the interconnectedness of the three elements (figure 4.3). For example, the way we think about faeces (symbolic element) affects the way we talk about them (practical element–verbal practice). This, in turn, affects our behaviour including the places we defecate and dispose of our faeces, and the ways we dispose of them (practical element–defecatory practice). These behaviours and attitudes drive, and are driven by, the infrastructure, objects and organisations we create to facilitate this disposal (material element). In turn these practices and infrastructure can reinforce our attitudes (symbolic element) and talk (practical element–verbal practice) about faeces and our reaction to encounters with them (practical element–sensory practices).
Figure 4.3: Understanding the forces shaping sewage regulation as an unspeakable problem

Jewitt (2011b:765) suggests that “the deeply rooted emotions and taboos associated with human waste often occlude rational responses to its disposal [and] handling”. For instance, the impact of the symbolic on the material element is shown in our desire for clean, white, hygienic spaces where the bathroom is presented in a way that belies its intended function: where hygiene is valued over bodily comfort (Lupton & Miller 1992:26) and where we can “erase the corporeality of toilet acts” (Dutton, Seth & Gandhi 2002: 140). Even though, as Morgan (2002:176) notes,

[w]ith each raised and lowered seat, every splash of urine, every tear of toilet paper littering the floor, the bathroom and its plumbing point to the impossibility of keeping intimacy (the personal) out of the public, and of keeping the sovereign individual free of contamination.

There is a tendency for the relationship between technology and social/cultural change to be seen in policy making for excremental matters as a simple and unproblematic linear one. As discussed in Chapter 3, such a view tends to focus the discussion of sewage regulation, and particularly sanitary reform, on its infrastructure or material elements. I understand the reason for this to be two-fold. In part it is because there is often an assumption that the question of how technology affects society is more important than its reverse, but it must also be acknowledged that the unspeakable qualities of excrement as a subject of policy making also shapes these discussions and discourses.

While Inglis’ mode of excretion was not developed to inform policy making, it does highlight and begin to explain the complex interrelationship between the ways we think about, talk about and respond to excremental policy issues, and the impact of this on the perceived acceptability of various technological, infrastructure and legislative solutions. As will be demonstrated through the following brief examples, careful consideration of
the symbolic, practical and material dimensions of wicked problems has the potential to give the policy maker a broader and deeper understanding of what is actually occurring in a policy process and in public reactions to it. Such an approach can also shape the way that problems are framed by bringing to light hidden assumptions and unconscious ideas. Consideration of these elements may also assist in developing a greater range of solutions. This is particularly true for those that are also unspeakable.

Attempts to impose change to sanitation regimes, even if they do provide wider environmental or health benefits, are likely to be met with resistance (Jewitt 2011b:765). Protests against the construction of deepwater sewage outfalls, plans to introduce recycled wastewater into a regional city’s drinking water supply, and the introduction of regulations regarding the discharge of sewage from recreational vessels provide three familiar Australian examples for which Inglis’ framework can help us to understand this resistance. This framework will be used to position the presence of excrement as an unspeakable policy problem in each of these policy vignettes to demonstrate, firstly, the relevance of the elements of the mode of excretion in policy analysis and, secondly, how the material element is often foregrounded in an effort to change practice, while the symbolic element and verbal and sensory practice aspects of the practical element are often absent or denigrated when they appear.

**Considering the case of the Bondi cigar**

Sewage treatment and disposal has traditionally been regarded as a technical matter and until recently the unquestioned domain of technical engineering professionals (Beder 1996). As a result, sewage has generally only been considered to constitute pollution when too much of it, an entirely subjective notion, was placed or appeared in the wrong place. A high profile example of this occurred when faeces began to wash up on the shores of Sydney’s popular and iconic Bondi Beach in the 1980s. This led to a situation where the question of how to deal with land-based sewage disposal was no longer simply the concern of engineers and local authorities, but instead an issue of considerable concern to and deeply contested by a variety of different actors (Jordan & Greenaway 1998). As a result of the public outcry against the construction of deepwater sewage outfalls, sewage treatment and disposal principles and practices that were once implicit began to be scrutinised and questioned. By the end of the 1980s in Australia a re appraisal
of the scientific understanding of sewage disposal at sea, combined with increasing community activism against such disposal, resulted in land-based sewage routinely being treated to primary and secondary treatment standard, with disinfection or tertiary treatment where warranted by the 1990.\textsuperscript{11}

During the course of undertaking doctoral research into engineering decision making, Beder, in perhaps the best known Australian work on public discussions of sewerage, inadvertently discovered that the New South Wales Water Board and State Pollution Control Commission had not publicly released the results of studies which showed extraordinarily high concentrations of organochlorines in the muscle tissues of Sydney ocean fish caused by exposure to sewerage discharges.\textsuperscript{12} Leaked to this press, this information caused a major media controversy and “precipitated a social and political crisis” (Booth 2001:167) which included a threatened strike by lifesavers (volunteers held in almost deified regard in Australian culture), huge losses to the fishing and seafood industries, and loss of business in seaside areas. Activist groups such as People Opposed to Ocean Outfalls (POOO) and Stop the Ocean Pollution (STOP), comprised mostly of “surfers and fringe environmentalists” (Beder 1991:249) were formed and spearheaded high profile actions to protest the pollution of Sydney’s beaches.\textsuperscript{13} Notably these actions were also supported by ordinary Sydneysiders who signed petitions, participated in marches and rallies, and attended the high profile *Turn Back the Tide* concert.\textsuperscript{14}

\textsuperscript{11} Primary treatment refers to the mechanical removal of gross solids, grit and settleable matter by screening and sedimentation. Primary treatment typically removes 30-40% of BOD and solid matter. Secondary and tertiary treatment involves the biological removal (by bacteria and other microorganisms) of additional amounts of residual organic and other matter. When used together all three forms of treatment remove approximately 95\% of BOD and solid matter.

\textsuperscript{12} Beder (1992) reports that two out of three species of fish caught near the largest outfall had levels of organochlorines in their muscle tissue that exceeded national maximum residue limits for fish. For example, red morwong fish had average levels of benzene hexachloride 122 times the residue limits for fish (for consumption) and also exceeded residue limits for heptachlor epoxide (more than 50 times on average) and dieldrin. The sewage outfalls were believed to be the source of organochlorine in fish.

\textsuperscript{13} Ward (1996) provides a parallel account of confrontational campaigns by British environmental activist group *Surfers Against Sewage*. An example of this tendered by Ward was the vivid imagery of a surfer in a gas mask used by the group which helped to attract media and public attention and to politicise the issue of beach pollution by sewage from outfalls in the United Kingdom.

\textsuperscript{14} Grace (2009:22) reports that protests at the proposed outfall site were stopped in October and November 1991, when police with dogs arrested and jailed scores of protestors, and children were taken away by state-employed welfare officers. Work on the pipeline was only stopped following several court hearings.
Newspapers carried graphic and highly inflammatory cartoons about the situation and in reference to this affair the term Bondi cigar became a popular euphemism for floating faeces which is still in common use (Dalzell & Victor 2008:78).

In *Toxic Fish & Sewer Surfing*, Beder (1989a) chronicled the heightened level of community and environmental concern regarding the then accepted practice of shore-based sewage disposal and the planned construction of deepwater outfalls at Sydney’s three main sewerage discharge points. According to Beder, the public demanded the secondary treatment of the sewage prior to discharge as they no longer believed that the deepwater outfalls would eliminate the sewage pollution on the beaches. While Leadbitter (1996:269) has attributed this concern to “Sydneysider’s love of their beaches and their concern over the aesthetic and public health implications of the old cliff-face sewage outfalls” the shift in public opinion was sudden, violent and unexpected given the degree of prior public acceptance.

Prior to the protests, the deepwater outfalls had “seemed to be well accepted as the solution to Sydney’s sewage pollution problems” (Beder 1991:223), so much so that the physical construction of the deepwater outfalls was already underway before the protests commenced. Beder suggests that this change occurred as a direct result of rising environmental awareness and a strong shift away from an unquestioning public acceptance that best practice engineering solutions necessarily provided the best social and environmental outcomes. Certainly,

…the pollution of Sydney’s beaches was ‘seen’ through immediate usage by surfers and other beach-goers but not ‘seen’ through the scientific reports and rhetorical arguments of the authorities…when the authorities in favour of new sewage outfalls attempted to close the debate through redefining the health debate about polluted waters as a solely aesthetic problem, they failed because the beach-goers preferred their own experience and intuition that the visible pollution was damaging their health (Eden 1996:192).

The recognition of sewage as a pollutant saw its progressive removal from street, to stream, to sea (Smith & Young 1993), all increasing the distance of the excrement from the individual who produced it. However, “[d]espite the schemes to erase superfluity, discarded objects, like all waste, are apt to return for systems of disposal are rarely
perfect and matter is often more difficult to eradicate than imagined” (Edensor 2005:316).

In fewer than two generations, Sydneysiders had come to take the convenience and comfort of their bathrooms for granted “unaware of the inconspicuous use of water and inconspicuous production of waste” (Fam 2008:597). Numerous alternatives were offered during the POOO protests “yet none addressed domestic practice: none sought to reform that most intimate sphere of domestic disposal” (Pickering 2010:40). Even environmental groups seemed to perceive treatment at the end of the pipe as the most efficient and effective way of dealing with pollution (Rockefeller 1998:11).

Hawkins (2004) contends that very little changed in public habits and attitudes as a result of the Sydney scandal, however, Leadbitter (1996:269) is more optimistic and has argued that the disposal of sewage is now a major public issue across Australia as a direct result of this scandal and that this “public interest in sewage disposal has generated wider questions about the management of water use in Australia”. However, it is slightly more complex than Leadbitter would suggest. While attitudes toward sewage disposal may have changed, personal disposal practices have not. In part this may be because a gap between values and intimate practices may arise simply because “the available technologies are inimicable to alternative values” (Sofoulis 2005:451) and because other options simply do not seem to be available.

Ward (1996:333) notes that, because pollution has traditionally been seen as a technical rather than a moral or political problem, many pollution debates have “been set with a technical discourse with expertise an important strategic resource to be used by protagonists”. However, it is a moral problem that is socially constructed. Beder (1990b:140) notes in the Bondi sewerage debate that:

[Each participant in this controversy implicitly acknowledges that the truth did not automatically emerge from the data obtained in the studies but was up for grabs to whomever could successfully get their own interpretation accepted as the ‘truth’. Science is a resource in the political arena and those who have best access to it and most control over it can shape meanings and interpretations.]
As shown in table 4.2, applying Inglis’ framework to the Bondi experience illustrates the pervasive influence of the attitudes about faeces on policy outcomes. What we see is that public opposition to the outfalls was as much, if not more, about the disgust associated with the re-emergence of faeces in the water as about any public health or environmental concerns. This excremental incident might have made real the outcomes of sewage disposal practices in a way that infrastructure like toilets and sewers contrive to disguise but it did not result in any changes to that system, only to the quality of discharges from it.

Table 4.2: Comparing the symbolic, practical and material elements of the Bondi sewage outfall debate

<table>
<thead>
<tr>
<th>element</th>
<th>sub-element</th>
<th>excrement characteristics</th>
<th>Bondi sewage outfall characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>symbolic element</td>
<td>attitudes and beliefs</td>
<td>faeces are disgusting</td>
<td>faeces is disgusting therefore sewage from outfalls = yuck</td>
</tr>
<tr>
<td></td>
<td>sensory practice</td>
<td>senses signal the presence of faeces but there is a low visual, olfactory and auditory tolerance for it</td>
<td>floating faeces and toilet paper is encountered in the waters adjacent to the outfalls or washed up onto the coastal foreshore</td>
</tr>
<tr>
<td></td>
<td>defecatory practice</td>
<td>keep faeces separate from society</td>
<td>Outfalls return faeces to society therefore reject outfall proposals</td>
</tr>
<tr>
<td></td>
<td>verbal practice</td>
<td>avoidance, euphemism and circumlocutory speech</td>
<td>In an effort to enable discussion proponents focus on technical engineering language while opponents focus on incompatible shock language and images</td>
</tr>
<tr>
<td>material element</td>
<td>intimate &amp; general means of excretory disposal</td>
<td>faeces → toilet (invisible) → sewer (invisible) → treatment plant (invisible) → ocean disposal (invisible) → environmental assimilation (invisible)</td>
<td>faeces → toilet (invisible) → sewer (invisible) → treatment plant (invisible) → outfalls (invisible) → ocean (visible) → shore (visible)</td>
</tr>
</tbody>
</table>

Considering POOwoomba and the sewage beverage debate

If the idea of deepwater outfalls discharging sewage into the ocean is controversial in developed countries, the idea of forcing residents to drink recycled wastewater is explosive. Wastewater reuse became the subject of policy making when the residents of drought-stricken Toowoomba (or Poowoomba as it was dubbed in the debate) were asked to support a system of “planned indirect potable reuse” (Cameron 2006) to supplement the city’s drinking water supply.

See www.poowoomba.com.au

The proposed process involved treating secondary effluent in an advanced water treatment plant that incorporates micro-filtration, reverse osmosis and ultraviolet disinfection/advanced oxidation. This purified water would then be piped to a dam to be thoroughly mixed with the dam water, before being pumped to a
Opponents of the plan formed a protest group calling itself *Citizens Against Drinking Sewage* or CADS (Langford 2006). CADS and other opponents of the plan called on voters to say “NO to putting POO in TOowoomba’s Water Supply for Drinking” (RB 2006). This no vote campaign fore-grounded the symbolic elements of the debate focussing squarely and unambiguously on wastewater’s abject elements and their attitudes toward it. They spoke at length about what they were being asked to do and forcefully signalled their disgust. They appealed to the community to reject the “toilet to tap” plan (Hanna 2006) because “drinking recycled water is not a generally acceptable thing to do” and voting no is “the responsible thing to do” in the absence of scientific certainty that there will be no long term effects of the new technology (Toowoomba City Council 2006). In direct opposition to the symbolic focus of the no vote, those in favour of the yes vote focussed instead on the material elements of the policy problem and the technical issues associated with the management and regulation of sewage.

While, by their very nature, such processes encompass complex issues of public and stakeholder opinion (Gray & Wiedemann 2000), these tend to be treated as able to changed through appropriate education, persuasion and public relations techniques (Russell & Hampton 2006) or resolved through appropriate consultation, open discussion and trust building exercises (Marks 2003, 2004a,b). Key politicians from all three tiers of government—local, state and federal—sought to win public support for the plan and prove the irrationality of the protesters’ claims through a process that was part science, part PT Barnum. The local council undertook an extensive pro-recycled water campaign and flew in samples of recycled water from Singapore to conduct blind taste tests in local shopping centres (Water Futures 2006). An interesting sidenote is that the recycled water was flown in from a nation state that has legislation to fine toilet-users if they do not flush toilets (Anthony & Dufresne 2007; Weiss 2005). Singapore is also the birthplace of the *Happy Toilet Program* (Sim 2003), the World Toilet College and the World Toilet Organisation (www.worldtoilet.org).
social, cultural or scientific concerns. This belief was also expressed by Malcolm Turnbull, the then Prime Minister’s water spokesperson, who argued that “the no case has obviously been a scare campaign...based more on emotion rather than science” (Millar 2006).

Like many failed attempts before it, the well publicised debate canvassed a variety of issues but the yes vote failed to give weight or pay due attention to the deep-seated emotions expressed by its vocal opponents. As a result, when the referendum was conducted, on 29 July 2007, almost two-thirds of Australia’s largest inland regional city voted overwhelmingly against government plans to supplement their drinking water supply with treated recycled wastewater.

In direct opposition to the disgust-driven arguments of the No vote in Toowoomba, the Yes vote, like many policy making processes on wastewater recycling, focussed on the material elements of the policy problem—specifically the technical, scientific and infrastructure issues associated with the management and regulation of recycled water. Dissenters were portrayed as contributing little more to the debate than an uninformed, uneducated nuisance based on irrational and unsophisticated emotions such as fear and disgust. As a result, sewage was routinely written out of stories about recycled water and replaced by a story about treatment regimes and science resulting in an unbalanced focus on promoting the material element of water recycling with scant attention paid to its symbolic, practical and discursive dimensions. The problem with this is that fears in relation to recycled water are not easily allayed by scientific facts or the assurances of politicians. As a result many citizens felt that there was a lack of transparency in the council’s handling of the issue. Failing to respond directly to their concerns led to a situation where some residents were left wondering what they weren’t being told (Turner 2006).

Despite their potential to address water shortfalls, water recycling proposals continue to be controversial. Alternatives, such as desalinated water, are generally publicly preferred over potable reuse options (Marks 2006). Clearly, the way we think about excrement affects our responses to recycled water and delimits the opportunities for open debate about these issues. Recycled water is more likely to be rejected by potential users than
other recycled products because the source of recycled water, sewage, elicits considerably more disgust and negative emotional responses than the source materials of recycled paper or plastic containers (Mellon & Tsagarakis 2006). By weight, domestic wastewater has been estimated to be over 99.5% water with the remaining 0.5% waste component comprised of urine and faecal matter, dirt, oils and cleaning compounds (Joy 1975). However, small the fraction of excrement within this 0.5% may be, it is arguably the most important factor in community acceptance of water reuse schemes. As a result, emotional responses to sewage need to be considered if one is to fully understand community attitudes to issues such as wastewater recycling (Khan & Gerrard 2006; Hurlimann 2005).

Community perceptions of water recycling are sensitive (Mikhailovich 2009) and responses to recycled water proposals can be highly emotional particularly when images of drinking excrement come into play (Schäfer & Beder 2006). This yuck factor, was both invoked and exaggerated in the Toowoomba case, particularly through the use of terms such as recycled sewage and toilet to tap by opponents to the proposal. The importance of the yuck factor has been recognised in recent studies as making a significant contribution to people’s responses to wastewater recycling and sewage management proposals (Hartley 2006; Po et al 2005; Stenkes et al 2006). However, despite the success that appeals to reject wastewater recycling schemes evoking images of toilet-to-tap and sewage beverage have enjoyed in both Australia and the US (Hartley 2006; Po et al 2005), many recent studies have focussed primarily on the communication and education requirements necessary to gain public acceptance of water reuse proposals and practices. While, by their very nature, recycled water proposals encompass complex issues of public and stakeholder opinion (Gray & Wiedemann 2000), these tend to be treated as able to be changed through appropriate education, persuasion and public relations techniques to develop public understanding (Friend & Coutts 2006) or resolved through appropriate consultation (Russell & Hampton 2006), open discussion (Beecher et al 2005) and trust building exercises (Marks 2003; Innes & Booher 2010). This situation is not restricted to recycled water debates. Indeed, much environmental policy making tends to assume that providing environmental information and education will secure desired behaviour changes (Cottrell 2003). Behaviour change is, instead,
intimately dependent on the public interpretation of issues (Eden 1996:183) and the values upon which these interpretations are based.

Despite the obvious influence so-called irrational concerns about the sewage content of recycled water have on the public acceptance of such proposals, many researchers focus on rational explanations to account for the public rejection of proposals or to provide solutions to address these concerns. The impact of trust in authorities (Marks 2003; Marks & Zadoroznyj 2005; Schäfer & Beder 2006) and public perceptions of the credibility, fairness and respect of the authorities proposing the introduction of recycled water (Beecher et al 2005) are seen to be important factors influencing the acceptability of proposals. Researchers argue that these perceptions are often heightened by a lack of appropriate consultation on proposals (Marks 2006) and a lack of common language, shared understanding and opportunities for social learning (Baggett et al 2006). Some researchers have also considered the impact of socio-demographic factors such as gender or education levels on the acceptance of recycled water (Po et al 2006) or point to the impact of a lack of knowledge and understanding of proposals by the public, the media (Goodman & Goodman 2006) or elected officials (Ingram et al 2006).

While this growing body of work broadly recognises the role that cultural norms, psychological factors and emotional responses play in the adoption or rejection of recycled water schemes in general, it does not deal in any substantial with the importance of addressing attitudes towards the sewage component of wastewater. 18

Considering Inglis’ three elements helps us to understand how the disgust-driven no vote campaign, which centred on the ideas of drinking sewage, was so successful. But more importantly it also helps us to begin to understand why the science-based yes vote campaign was unable to gain sufficient leverage from the continuing drought and the very real potential for the community to run out of water if alternative water supplies were not adopted. That this issue had to go to a referendum at all indicates the success

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18 The importance of the psychosocial aspects of sanitation is given slightly more weight in the literature advocating eco-sanitation solutions to the problem of sewage waste management (Rosenquist 2005; Quitzau et al 2004; Warner n.d). A possible explanation for this is that those advocating eco-sanitation as a viable alternative to convention waste management practices seek to simultaneously change behaviour, practice, infrastructure and attitudes.
of the No campaign since there was no referendum for the addition of fluoride to water or, for that matter, any other treatment to which domestic water supply is subject. As shown in table 4.3, applying Inglis’ framework to the Toowoomba experience clearly illustrates the direct link between attitudes about excrement and recycled water, once again demonstrating the pervasive influence of the symbolic element on policy making.

Table 4.3: Comparing the symbolic, practical and material elements of excrement and the recycled water debate

<table>
<thead>
<tr>
<th>refined element</th>
<th>sub-element</th>
<th>excrement characteristics</th>
<th>recycled water characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>symbolic element</td>
<td>attitudes and beliefs</td>
<td>Faeces are disgusting</td>
<td>recycled water = sewage = faeces =yuck</td>
</tr>
<tr>
<td>practical element</td>
<td>sensory practice</td>
<td>senses signal the presence of faeces but there is a low visual, olfactory and auditory tolerance for it</td>
<td>concern that users may not be able to use senses to distinguish recycled water from other water and to identify the presence of faeces</td>
</tr>
<tr>
<td></td>
<td>defecatory practice</td>
<td>keep faeces separate from society</td>
<td>keep faeces separate from society = reject recycled water</td>
</tr>
<tr>
<td></td>
<td>verbal practice</td>
<td>avoidance, euphemism and circumlocutory speech</td>
<td>In an effort to enable discussion proponents focus on technical language while opponents focus on incompatible shock language</td>
</tr>
<tr>
<td>material element</td>
<td>intimate &amp; general means of excretory disposal</td>
<td>faeces → toilet → sewer → treatment plant → ocean disposal → environmental assimilation (gone)</td>
<td>faeces → toilet → sewer → treatment plant → tap → consumption (unwanted return)</td>
</tr>
</tbody>
</table>

Considering the regulation of sewage discharges from recreational boats

If these instances of sewage regulation were so inflammatory, how much more if we are dealing with making people look after their own waste directly with no abstraction, as occurs in the ship-board management of faeces through the prohibition of overboard discharges. All Australian jurisdictions now have legislation in place to regulate the discharge of sewage from vessels using their coastal waters, however, the acceptance of these regulations by the boating community has been varied and often controversial, particularly with respect to recreational boating. In part, this is because while many recreational boaters agree that water quality is important, the majority do not believe that vessels are a major contributor to marine pollution (Baasel-Tillis & Tucker-Carver 1998), particularly sewage pollution.
Opposition to sewage controls has been particularly strong from recreational boaters who have traditionally disposed of organic wastes such as faeces, food scraps and anything that will go through the marine toilet directly overboard without regulatory intervention or perceptions of environmental consequence (Seabloom 1996). This is particularly true of boaters using tidal waters or rivers where it is believed that the wastes are washed away by the movement of the water, decomposing very rapidly in the ocean environment (Baasel-Tillis & Tucker-Carver 1998:8), or tidily consumed by hungry fish. However, while recreational boaters around the world are finding that in today’s atmosphere of environmental concern this practice is no longer publicly acceptable (Finlay & Warner 2005:156), they remain highly resistant to attempts to regulate the discharge of sewage from their vessels, even in jurisdictions with a long history of regulating such discharges (Milliken & Lee 1990:1).

Within the Australian experience, New South Wales was the first Australian state to introduce sewage discharge controls for small ships, including recreational vessels. In 1987, the NSW State Pollution Control Committee (SPCC) mandated the installation of sewage holding tanks on all of Sydney’s ferries.

The heightened environmental awareness generated through events like the well supported 1989 Clean Up Sydney Harbour Day (Dobson & Gill 2006:344) and the Turn Back the Tide concert in the same year had put considerable pressure on the New South Wales Government to establish no discharge zones in Sydney Harbour and inland waters. Indeed, government officers publicly confirmed that they had received strong pressure from community groups and the general public that all “visible and controllable sources of pollution should be controlled” (Carey et al 1992:190) as a result of the public’s increased awareness of environmental issues in the state, particularly those related to water quality. These views were supported by the findings of reviews conducted by the SPCC Clean Waters Advisory Committee in 1988 and the Waterways Authority in 1989, which resulted initially in the establishment of vessel sewage regulations for Sydney Harbour. These were soon extended to include a number of inland waterways (Waterways Authority 2000).

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19 The sewage was removed from the ferries using a tanker service to pump-out and transfer the wastes (Carey et al 1992).
By 1992, vessel-sourced sewage discharge controls had been extended to all commercial operators on Lake Macquarie and all recreational and commercial vessels using Sydney Harbour through the introduction of proscriptive no discharge provisions in these areas. The Sydney Harbour provision, in particular, prescribed the mandatory installation of holding tanks to contain sewage waste in all commercial and new recreational vessels using the Harbour and although existing recreational vessels were not required to install holding tanks, they were prohibited from discharging sewage in the Harbour (Carey et al 1992). Although the New South Wales Government acknowledged that sewage from vessels was not a major contributor to poor water quality, they contended that it did have a contributory impact on overall water quality “and therefore must be addressed as part of the Government’s wider anti-pollution strategies”. By the late 1990s the NSW Government determined that a state wide strategy was required to “reflect contemporary environmental and health concerns” (Waterways Authority 2000:1).

In 2000, the New South Wales Government proposed the extension of the no-discharge provisions. This effectively prohibited the discharge of untreated sewage in all New South Wales waters, although it was proposed that sewage treated to a specified standard could still be discharged in waters other than those designated as no discharge zones such as waterways where aquaculture occurred, waterways used as drinking water supplies, in or near bathing, mooring, marina and anchorage areas, and in areas identified as sensitive ecosystems or designated marine parks (Waterways Authority 2000, 2001). The New South Wales sewage regulations were based on a risk management approach that determined that commercial passenger carrying vessels, and commercial hire and drive/sail vessels 6m or more in length posed the greatest potential sewage pollution risk. As a result the regulations required these vessels to install a toilet and sewage holding tank and to only discharge sewage to pump-out facilities.

Opposition to the mandatory installation of holding tanks and other compliance measures was expressed by recreational boaters at public meetings held by the NSW Waterways Authority (Jackson 2000) and the Boat Owners Association of New South Wales [BOANSW] called for all recreational boaters to voice their concerns to counter the views of “representatives of other organisations not particularly sympathetic to recreational boating” and to ensure that “reasonable boating use and freedom to holiday
on the water [remained] available to everyone—not just the very rich” (BOANSW 2000a). The BOANSW disputed the validity of the government’s risk management approach on the basis that there was no scientific evidence to support the Waterways Authority’s claims that the volume of sewage discharged from recreational vessels represented any public health or environmental risk (BOANSW 2000b). They also emphasised the impracticality of the proposals and their unenforceability threatening that “impractical, unenforceable regulation encourages illegal activities and may well result in a situation exactly opposite to what it is attempting to achieve” (BOANSW 2000a:1).

Indeed, illegal acts are more likely if individuals can rationalise their actions as being acceptable and the regulation as illegitimate because it is unfair and unnecessary (Smith & Anderson 2003:4). Despite recent upgrades to sewage treatment plants in New South Wales, recreational boaters continued to protest that there should be a further reduction in the level of effluent from land-based sources before additional requirements for vessels were introduced (Waterways Authority 2001:7).

The government responded that maintaining the status quo with respect to sewage regulations “would be viewed by the community as an environmentally irresponsible outcome” (Waterways Authority 2000:17). Although never traced back to a vessel source, an outbreak of Hepatitis A from oysters sourced from Wallis Lake on the central coast of New South Wales in 1997 helped to highlight the potential impact of sewage discharges and to prompt calls for stricter controls of vessel discharges (Sapwell 2002:9). It was used by the government to ask in its Position Paper, what to the boating community seemed a provocative question and inflammatory allegation:

Given the proven health and environmental consequences of raw sewage going into our waterways can the discharge of untreated sewage from vessels into any of our waters be permitted? (Waterways Authority 2000:23).

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20 In 1997 over 400 people contracted Hepatitis A after consuming contaminated oysters from Wallis Lake. This was the first viral outbreak of its kind in New South Wales (McMillan 2003). There was evidence that the source of the contamination was human faeces which were most likely to have generated from land based sources such as seepage from septic tanks in nearby villages, caravan parks, shore-based public toilets and pit toilets, and from stormwater runoff (Pengilley 2003).
It was also used by stakeholders such as Tweed River Council River Committee to begin to get boat owners “to clean up their act” on the basis that:

There is no excuse in this day and age for anyone to be discharging raw sewage straight into our waterways – especially when pump-out facilities are available. I took steps to stop the discharge of sewage because of great concerns about the water quality and the impact it was having on the environment and people who use our waterways. They include the oyster farmers, fishermen and other recreational users (Sapwell 2002:9).

The provision of sewage pump-out infrastructure was an important element in the implementation of the New South Wales Government’s plans to provide boaters’ with opportunities to legally remove sewage from their vessels. However, some “nearby residents [were] naturally aghast” (Central Coast Express 2002:30) at proposals to install sewage pump-out stations at certain waterside sites citing concerns over the potential for vandalism and possible sewage spills during pump-out (Stubbs 2004:3). Recreational boaters also resisted the use and installation of these of these facilities pointing to the “health and safety risks associated with the transfer of effluent to pump-out facilities” (Waterways Authority 2001:6), an ironic situation given their continued refusal to accept that sewage discharges from recreational vessels posed any kind of environmental or public health risk.

The public arguments put forward by the boaters presented a pervasive sense of the boater-as-victim and disengagement, or at least a desired disengagement, with their own waste. Rather than acknowledging the yuckness of the faeces, as the members of the public did, the state furthered the idea of the incontinent vessel and immaculate defecation. The boaters’ refusal to directly engage with the issues surrounding faeces was underscored by a desire to maintain the illusion of the anonymous boater without bowels. As shown in table 4.4, applying Inglis’ framework to the NSW experience of attempting to regulate sewage discharges from recreational boats illustrates the pervasive influence of the symbolic element of the framework upon all others, even if it is not the aspects we might expect to see. Instead what we see is that opposition to the need to manage sewage waste onboard a vessel prior to shore based disposal, as opposed to the common practice of immediate through-hull discharge into the surrounding waters, was as much, if not more so, about the disgust associated with having to acknowledge their own waste and a forced contact with it.
Table 4.4: Comparing the symbolic, practical and material elements of the NSW ship-sourced sewage debate

<table>
<thead>
<tr>
<th>element</th>
<th>sub-element</th>
<th>excrement characteristics</th>
<th>NSW ships-sourced sewage characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>symbolic element</td>
<td>attitudes and beliefs</td>
<td>faeces are disgusting but yours are more disgusting than mine</td>
<td>sewage = faeces = yuck but my faeces are not as offensive and polluting as yours</td>
</tr>
<tr>
<td></td>
<td>sensory practice</td>
<td>low visual, olfactory and auditory tolerance for faeces</td>
<td>Olfactory presence of faeces on board vessel in holding tank is offensive</td>
</tr>
<tr>
<td></td>
<td>defecatory practice</td>
<td>keep faeces separate from society</td>
<td>keep faeces separate from recreation = reject proposals to hold sewage onboard prior to shore-based disposal</td>
</tr>
<tr>
<td></td>
<td>verbal practice</td>
<td>avoidance, euphemism and circumlocutory speech</td>
<td>In an effort to enable discussion proponents focus on technical and environmental language while opponents refuse to address issues directly</td>
</tr>
<tr>
<td>material element</td>
<td>intimate &amp; general means of excretory disposal</td>
<td>Current practice on land: faeces → toilet (no contact) → treatment plant (no contact) → ocean</td>
<td>Current practice on vessels: faeces → toilet (no contact) → ocean (potential contact with others denied by boaters) Proposed practice on vessels: faeces → toilet (no contact) → holding tank (psychological contact) → shore-based pump-out (physical contact) → treatment plant</td>
</tr>
</tbody>
</table>

**Conclusion**

These brief policy vignettes show that when dealing with unspeakable problems their discursive and symbolic aspects must be explicitly considered and addressed. It is not enough to simply propose new technical, infrastructure, or regulatory solutions to wicked problems and to provide scientific justifications for these (Brooks & Champ 2006:794). Instead achieving sustained changes in behaviour is required.

For many wicked and unspeakable policy problems influencing human behaviour is very complex and the effectiveness of traditional approaches to influencing behaviour such as legislation, sanctions, regulations, taxes and subsidies may be limited, without some additional tools and understanding of how to engage citizens in cooperative behavioural change (APSC 2007:31). Davoudi’s (2000) work on the discourses of waste management has shown that while the discourses of waste in policy are changing and environmental concerns are gaining an increased significance in shaping the policy discourses this has had little practical impact on how waste is managed or the realisation of these policies.
This is because little attention is paid to how people understand waste and the practical resources available to them to change their habitus. Policy makers need to acknowledge the symbolic, practical and discursive limitations of what a policy that focuses primarily on infrastructure outcomes can achieve. There needs to be a focus on understanding and responding to a range of community attitudes and those involved in policy processes need to have the ability to explicitly express value judgements and beliefs about policy proposals that go beyond scientific information and policy makers need to find ways to accommodate these as a legitimate part of the policy making process (Bengtsson & Tillman 2004:65).

Wuthnow et al (1984:89-90) observe that:

We often experience things out of place but do not react. Given some crisis in our social relations, however, we suddenly announce that ‘this place is a mess’ and proceed to clean it up. It is the social crisis…that suddenly makes the room seem messy and dirty…[We] can always declare some activity illegal or immoral and prosecute, no matter whether the same thing in a different place or at a different time was ‘legal’.

Or for that matter a water source unclean or a once accepted sewage disposal practice polluting.

In this chapter I argued that, in addition to being a wicked problem, the regulation of sewage is further complicated by high levels of verbal proscription and psychosocial sensitivity due to the presence of excrement. The work of Mary Douglas was used to understand the basis for the high levels of verbal proscription and psychosocial sensitivity surrounding excrement. The work of David Inglis was used to illustrate the part that excrement plays in the construction of sewage regulation as an unspeakable problem and the role of its symbolic, practical and material elements in this construction. It found that restricting policy input to the more comfortable issues of infrastructure and science, at the expense of paying sufficient attention to deeper issues of social and contextual meaning, can have significant impacts on policy outcomes. The next part applies these understandings to consider a particular case study: the development of regulations governing the discharge of sewage from vessels in Queensland from 1994 to 2010.
UNDERSTANDING EXCREMENT AS AN UNSPEAKABLE POLICY PROBLEM
Sewage, whether fluid or solid, mixed or unmixed, is very much like our convicts, everybody wants to get rid of it, and no one consents to have it.

John Hollingshead, 1862 in David Pike, Sewage Treatment (2005:68)

CHAPTER FIVE
A story of boaters, floaters and voters

Introduction
In this chapter, I establish and define the policy context for the regulation of sewage in the marine environment to place the case study that forms the basis of this thesis in its broader comparative, historical and regulatory context. As Chapter 4 showed, the regulation of sewage from vessels displays many of the same unspeakable characteristics as a policy issue as land-sourced sewage; however, in Queensland it is dealt with under different institutional arrangements (i.e. marine pollution rather than water supply and sewerage regulations). I commence this chapter by providing contextual information regarding the regulation of vessel-sourced marine pollution at the international and national (Australian) level. I then turn my attention to the regulation of sewage discharges from smaller and recreational vessels at the more local (state) jurisdictional level and examine the most common approaches to regulate sewage discharges from recreational vessels before zooming in on what happened when the Australian State of Queensland attempted to introduce such sewage disposal regulations for vessels using its coastal waters. In the second half of the chapter I provide a detailed examination of the policy making process adopted, including the development, implementation, subsequent review and enforcement of Queensland’s regulatory regime to manage the discharge of sewage from recreational vessels.
Perceptions of marine pollution

Marine pollution was among the first truly international environmental issues (Dow 1999) and popular interest in protecting the marine environment from pollution continues to be one of the most important environmental issues of our era (Tan 2006). The idea of marine pollution is, however, a recent concept (Patton 2007:31). As we have seen in the previous chapters, the aquatic environment has traditionally been viewed as a bottomless pit for waste, based on a dilute and disperse philosophy, as though this were the same as disposing of the wastes completely (Ward 1996:333; Illich 1985:74). The oceans’ perceived infinite absorptive capacity seemed particularly unquestioned. Indeed, Jordan and Greenaway (1998) claim that the aim of coastal management policies in particular have traditionally been to optimise pollution by making maximum use of the capacity of the marine environment to assimilate waste, rather than to minimise it. Thus, wastes like sewage were only considered to be pollution when too much (an entirely subjective measure) of it was placed or turned up in the wrong place.

Constructed as empty, vast and cleansing (Ward 1996; Smith & Young 1993), the marine environment has traditionally been viewed as “the most convenient cesspit available to mankind” (Horan 1985:75). The ocean dumping of sewage was seen as a cost effective way of dealing with human wastes without causing noticeable pollution, due to the dilutions able to be achieved (Koop & Hutchings 1996:21). The general public, mariners and policy makers alike behaved based on “the idea that the sea can always take it” (Patton 2007:2) and:

…view of the ocean as a vast flushing (and self-cleaning) toilet, a receptacle for every kind of waste…because it seems infinite in size and indeterminate in life span, because it is made up of salt and water, because it is in constant motion through the tides, waves, and currents that carry things away, the sea will always dilute or change what is put into it and not be changed (Patton 2007:10).

While the idea that the ocean has an innate capacity to receive and dilute an infinite amount of waste is now recognised as an “outdated and ineffectual paradigm” (Brunton 1996:41), sewage disposal practices continued, until recently, to reflect this optimistic view of the ocean’s ability to dilute and, ultimately, assimilate waste (Lewis 1998:26).
Sewage disposal practices that were once accepted, or at least unquestioned, have now been scrutinised and, in addition to changes in land-based sewage management practice, sewage discharges from vessels have now begun to be recognised as a cause of water pollution (Walker et al 1991:441) and the subject of regulatory interest.

Although vessel-sourced pollution may represent a minor contribution to overall marine pollution levels when compared to land-based sources of marine pollution (Brunton 1996; Corbijn 2005; Williams 1996) in recent years waste discharges from vessels have come under increased public and regulatory scrutiny both in Australia and world-wide.\(^1\) International, regional, national and local restrictions have become more stringent for vessel-sourced sewage in particular (Corbijn 2005:5).\(^2\)

**Approaches to managing ship-sourced sewage**

The key international regulation for managing the discharge of sewage and other pollutants from ships is the *International Convention for the Prevention of Pollution from Ships 1973/78*, otherwise referred to as MARPOL. Both proscriptive and prescriptive in its approach, MARPOL contains regulations regarding where sewage and other pollutants may be discharged, the equipment that ships must install to control discharges, and the

\(^1\) It is estimated that approximately 70% of Australian marine pollution is derived from land-based sources, with discharges from vessels accounting for approximately 10% (Brunton 1996:37). This estimate is reasonably consistent with other accounts (see Corbijn 2005 and Williams 1996) although the consistency of this along Australia’s coast is unclear. Globally it has been argued that on a relative basis boats account for less than 0.5% of the total water quality problems attributable to sewage while inadequate municipal sewage systems, faulty septic tanks and upland run off account for between 85 and 95% (PIANC 1997:5).

\(^2\) In part, this shift can be attributed to the publicity surrounding major oil spill events such as the Torrey Canyon incident off the coast of Cornwall, England (Burrows, Rowley & Owen 1974; Rose 2011), the Exxon Valdez incident in Prince William Sound, Alaska (Planete Energies & CEDRE 2008), the Oceanic Grandeur incident in the Torres Strait (QT & GBRMPA 2001:14); and the recent Pacific Adventurer incident off the Queensland coast (ATSB 2009; Harper 2009). Due to the high profile of these oil pollution incidents, the trend has been to devote the vast bulk of government expenditure and regulatory efforts toward oil spill prevention and response (Julian 1994). However, notwithstanding the public prominence of and environmental devastation caused by such accidents the vast bulk of vessel-sourced pollution results from routine operational discharges such as washing cargo tanks, sewage discharges and garbage disposal, rather than as a result of significant spill incidents (Bodanksy 1991:724). It could therefore be argued that, relative to other ship-sourced pollutants, insufficient attention has traditionally been paid to minimising the impacts of these hitherto overlooked pollutants (Tharpes 1989:582).
facilities that must be installed at ports and terminals to receive a range of wastes from these ships.⁴

MARPOL’s sewage discharge regime is based on a combination of the characteristics or quality of the sewage effluent produced by various sewage treatment and disposal technologies and the vessel’s distance from nearest land at the time of discharge. For instance, discharges are permitted from a ship using an approved maceration and disinfection system provided that the ship is more than three nautical miles from the nearest land at the time of discharge. This is based on the International Maritime Organisation’s (IMO 2011:1) opinion, redolent of Patton’s (2007:5) depiction, that “on the high seas, the oceans are capable of assimilating and dealing with raw sewage through natural bacterial action”.

While MARPOL provides a precise definition of which discharges at sea are illegal, as an international convention it does not contain specific enforcement or penalty provisions. Instead it requires sovereign states to enact legislation to prohibit discharges within their territorial seas by providing sanctions under their laws and taking action against offenders. The Commonwealth Protection of the Sea (Prevention of Pollution from Ships) Act 1983 gives effect to MARPOL’s sewage provisions for vessels on international voyages within Australia’s territorial waters. It is administered by the Australian Maritime Safety Authority (AMSA n.d.:5). Sewage provisions which mirror MARPOL’s requirements have been reflected in the Commonwealth Act since a 1986 amendment. However, despite their presence in the Act, Marine Orders enacting them were not introduced until 2004 for new ships (AMSA 2008:1) and 2009 for existing ships (AMSA 2009a). West (2004:136) suggests that this lack of action was due to insufficient global acceptance of MARPOL’s sewage annex until 2003.⁴

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³ Given its international focus MARPOL’s sewage management requirements only directly apply to ships on international voyages which are 400 tons gross tonnage and above or certified to carry fifteen persons or more. Refer to Appendix 5 for more detail on MARPOL and its application.

⁴ MARPOL’s sewage annex was not ratified and entered into force internationally until thirty years after the introduction of MARPOL and only following significant amendments to its content. Julian (2000) suggests that the most significant reason for the ratification delay was the requirement for shore-based waste reception facilities but that advances in shipboard treatment equipment which made sewage treatment less costly and difficult facilitated its final international entry into force. However, less onerous
Although MARPOL and its equivalent Commonwealth regulations focus on ocean going large ships there is general acceptance that its reference to the number of people on board a vessel as an alternative to the gross tonnage reference provides an obligation for nation states to also regulate the discharge of sewage from these vessels (The Motor Ship 1991:21). As an indirect result, individual Australian states and territories are required to enact legislation that would apply to smaller vessels operating in their coastal waters. However, until relatively recently, the mandatory control of sewage discharges from recreational boats and small ships had only been effectively imposed in a few parts of the world, most notably in the United States of America, and it was controversial wherever attempted.

**Regulatory approaches to managing ship-sourced sewage discharges**

In terms of environmental issues vessel-sourced sewage could be considered a brown policy problem because it is concerned with addressing anthropogenic pollution. Within the Australian context, there has been a trend toward a mix of policy instruments to manage brown problems which range from the voluntary to the regulatory (Crowley 2004:392). There are, however, four forms of policy intervention or policy instruments that are frequently applied in this context: exhortation; economic incentives and discharge requirements and a loosening of the vessels to which the annex applied—the text was amended prior to ratification to increase the minimum tonnage from 200 to 400 and passenger numbers from ten to fifteen—are also likely to have been contributing factors. It is also possible that its passage was impacted by the public debate, driven by environment activist organisations, regarding cruise ship sewage discharges in North America, particularly off the Alaskan coast (see GAO 2000; Copeland 2007; Dobson & Gill 2006; Klein 2007; and Schulkin 2002 for more detailed discussion of the issues in this debate).

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5 Ten in the original text (IMO 1997) and later upgraded to twenty in the final text of MARPOL (IMO 2005).

6 To this effect AMSA (n.d.:5) recently posted a summary of discharge standards for ships and smaller vessels operating in Australian waters that recommended that vessels of all sizes, including those on domestic voyages should comply with MARPOL’s discharge provisions even where local laws do not prohibit discharge.

7 Reasons for the slow uptake in other jurisdictions has been supposed to be related to included concerns about the “real or imagined cost” of complying compared to the potential costs of not complying, suspicions that sewage pumped ashore would simply be returned to the sea untreated by local authorities (Irons 1986:53) and a more philosophical opposition to the provisions of MARPOL’s sewage annex being applied to smaller vessels (White 2002:393).

8 As opposed to a green policy problem which is concerned with matters such as biodiversity, forestry, world heritage, resource conservation and management, and ecological restoration (Crowley 2004:393).
disincentives; provision; and regulation (Fenna 1998:7). Or to use Althaus, Bridgman and Davis’ (2007:8) typology of policy instruments: advocacy (arguing a case); money (using and spending taxing powers); law (using legislative power); and direct government action (delivering services).

Figure 5.1 shows how policy outcomes relating to the management of sewage discharges from recreational vessels are most often advanced based on these policy instruments. Applying laws or regulation which proscribe, prescribe or otherwise control disposal behaviours regulation are the most common form of policy instrument applied in the Australian context. However, because effective environmental governance is a multifaceted exercise, and laws (in themselves) provide only part of the solution (Turton 2010:47) these policy instruments are often combined to achieve policy outcomes (Maddison & Denniss 2009:119). Consequently, laws are supported by economic disincentives in the forms of fines to modify behaviour, the provision of infrastructure, such as onshore sewage pump-out facilities, to facilitate behaviour change and the use of advertising and other information campaigns to persuade boaters to adopt the desired sewage disposal practices.

While Fenna (2004:13) later augmented these categories to discern between policy instruments which apply direct methods of policy intervention (coercion to command the desired behaviour), more indirect methods of policy intervention (suasion to influence behaviour through communication and education without recourse to coercion of any form) and those that fall somewhere in the middle (inducement to influence behaviour by attaching rewards or costs through economic incentives or disincentives) these initial broad categories still apply. Similarly, the policy instruments more generally applied for environmental management in the Australian context such as provisory mechanisms, regulation, charges, taxes and subsidies, ‘cap and trade’ permit schemes, conservational auctioning schemes, performance schemes, volunteerism and voluntary action, and information, education and persuasion (Crowley 2004:412-413) can also be placed within these broad categories.
Exhortation approaches to managing sewage discharges from vessels

It has been suggested that some illegal sewage discharges from vessels may result from an unintentional failure to comply based on a lack of knowledge of regulations, or a lack of understanding of the potential public health and ecological impacts of dumping activities that leads boaters to conclude that their actions are harmless (Baasel-Tillis & Tucker-Carver 1989). As such, education and exhortation programs which emphasise the impact of discharges on the environment and which encourage boaters to perceive the regulation of boat wastes as appropriate to the degree of damage that illegal discharges cause, are seen by many as key to changing boaters’ behaviours. However, de-amplification of the ecological and public health risk associated with activities that are familiar and enjoyed (Burger 2000), such as boating, may contribute to motivations for non-compliance. Similarly, some boaters deliberately disregard discharge regulations because they rationalise illegal dumping activity as acceptable because they question the legitimacy of regulations that they believe to be unfair, unnecessary or too onerous and are unwilling to pay the costs of compliance (Smith & Anderson 2004).

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For instance, Baasel-Tillis & Tucker-Carver (1989) suggest that more education, based on research, may be required on a number of key issues including: the impact of organic wastes on the oxygen availability in the water and the contribution of recreational boating discharges to this; the potential for algal infestations of epidemic proportions to occur in nutrient enriched waters and the potential for recreational boating discharges to contribute to overall nutrient levels; and the contribution of recreational boat sewage to an increase in the number of disease organisms in the marine environment and their impact on shellfish and swimming areas [such as cholera, typhoid, hepatitis, gastroenteritis]. Refer Appendix 3 for a detailed discussion on the potential public health, ecological and aesthetic impacts of sewage discharges.
As discussed in earlier chapters, the acceptance of and compliance with policy instruments is based on perceptions of the policy problem and the range of solutions advocated. Failure to engage boaters’ cooperation in any behavioural or regulatory change jeopardises the likelihood of achieving policy outcomes. This is particularly true with respect to regulation relating to sewage management because the direct discharge of sewage from vessels is difficult to detect (particularly in remote areas and in darkness) (Aston 2008:243), because enforcement patrols are generally irregular, widely dispersed and costly to run in terms of personnel and equipment (Buky 2008:8) and manpower limits rarely permit inspection of vessels to ensure their compliance unless a complaint is received (Irons 1986:53).

The achievement of policy outcomes must therefore rely largely on moral suasion; that is, knowledge that pumping raw or inappropriately treated sewage overboard is both unlawful and harmful will cause individual boaters to incur costs to avoid violating the law and degrading the environment (Strand & Gibson 1990). While education and fines have the potential to contribute to changes in sewage disposal practices, they are likely only to be effective as a result of the perceived reality of the existence and highly probable potential threat of regulation and its enforcement, i.e. policing (Johnson 1989:512). Education, a duty of care and self-regulation are considered to be the primary and most effective means of achieving compliance with ship-sourced sewage discharge prohibitions (Aston 2008:243).

**Regulatory approaches to managing sewage discharges from vessels**

There is a consistent and growing trend across Australian and international jurisdictions to introduce regulations which prohibit or restrict the discharge of sewage from vessels on the basis that discharges have an adverse impact on the marine environment, threaten the health of people in the water and pose a risk to aquaculture products intended for human consumption such as oysters (see Appendix 4 for a detailed discussion of claims regarding the potential public health, ecological and aesthetic impacts of sewage discharges and the basis for these); consequently, sewage discharges from vessels are often restricted or prohibited in these areas and areas which are deemed to have ecological sensitivity, environmental value or some economic value dependent on water
quality. As such, the introduction of these discharge prohibitions is usually justified by those seeking the regulations on the basis of public health, aesthetic or environmental concerns, or any combination of these. These might combine for instance into economic impacts on some sectors of the community such as oyster farmers and other aquaculture industries or the tourism industry.

Contemporary regulations to manage vessel-sourced sewage discharges take two main forms: practice or behaviour-based regulations, focused on defining and enforcing operational requirements that place restrictions on the location, timing and nature of sewage discharges; and infrastructure-based regulations, focused on defining and enforcing vessel design and infrastructure requirements which mandate the use and installation of specific sewage management appliances. As shown in figure 5.2, approaches within these two broad categories may apply prescriptive, proscriptive or performance-based regulatory styles or a combination of these.

![Figure 5.2: My conception of the main types of operational and infrastructure-based sewage regulation](image)

Operational approaches to regulating sewage discharges from recreational vessels tend to focus on practice- or behaviour-based proscriptions that restrict the location, timing and nature of sewage discharges through the designation of no discharge areas and may or may not prescribe the method of avoiding discharge. While the more prescriptive operational approaches may require the installation of certain sewage management infrastructure to restrict discharges, by contrast, more performance-based operational
approaches are generally silent on these methods, simply specifying the desired outcome rather than prescribing specific processes, techniques, procedures or infrastructure (May 2003). In practice, however, these performance-based approaches may require that a vessel operator be able to prove, through the production of a sewage management plan or similar document, how discharges will be or have been managed in no discharge areas. For example, an option available to comply with a performance-based operational regulatory approach in some jurisdictions is to remove, seal or otherwise not use their onboard toilet and instead use those provided on land at marinas and other shore-based facilities (USCG 1999).

By virtue of their nature, vessels have usually been able to easily dispose of sewage by simply defecating directly into the sea or by throwing the excrement collected overboard (Bašić 2001:135). Historically, sewage management infrastructure consisted of small ships relying on buckets dipped into the ocean after use and larger ships on the use of chamber pots, privies or seats on the bow of the vessel which dumped the waste directly into the ocean (Simmons 1997). By contrast, today, it is not uncommon for governments to mandate the installation of a range of sewage management appliances to manage the disposal of sewage in accordance with operational no discharge provisions embedded in regulation.

More prescriptive vessel design and infrastructure regulatory approaches mandate the installation of specific sewage management infrastructure which can range from marine toilets to fixed installation of appliances with the ability to collect, store and/or treat the sewage prior to disposal. The enforcement of such vessel design and mandatory infrastructure installation approaches tends to assume that the presence of such systems equates to evidence of compliance with operational measures because it can be very difficult to monitor and enforce their use. However, in some jurisdictions, a more proscriptive approach may be applied in which toilets are sealed or a lock placed on the holding tank discharge valve upon arrival in no discharge areas such as ports to prevent their use, or a dye tablet may be placed in the vessel’s holding tank so that any illegal

Refer to Appendix 4 for a detailed discussion of the range of sewage management devices used on vessels and the land-based systems used to collect the waste stored in such devices.
discharges will be immediately observable\textsuperscript{12} (Brody 2010). In some jurisdictions, performance-based vessel design and infrastructure regulatory approaches may permit the use of a wider variety of fixed and removable sanitary appliances, such as portable chemical toilets, providing that they provide boaters with the means to adequately meet the prescribed operational outcomes.

\textbf{Regulating recreational vessel sewage discharges: a Queensland study}

Recreational boating is a major and growing industry in Queensland, considered “\textit{the premier recreational boating state in Australia}” (English 2008:1650). Queensland has experienced recreational boating growing at more than twice the rate of population growth in the last ten years; “one in 22 people in Queensland is a registered boat owner” (Lucas 2006:1). Queensland has more registered boats than any other state or territory in Australia and its recreational vessel registrations account for more than one-quarter of the nation’s total vessel registrations (Blackman 2010:19).

Almost half of the 229,372 registered recreational vessels in Queensland are in the south east corner of the state (Blackman 2010:5&8), which has the highest number of boats and registered watercraft in the southern hemisphere (Stolz 2002:18). While this is generally considered good news for the Queensland economy boating, (particularly recreational boating) can also be major contributor to marine pollution (Mele 1993; Warnken & Byrnes 2001). Rapidly increasing boat traffic is believed by some to be putting too much pressure on Queensland’s sensitive waterways and the dumping of sewage, among other impacts, is seen to be symptomatic of the problems caused by high concentrations of recreational boats (Stolz 2002).

\textsuperscript{12} For example, in the United States, Coast Guard regulations require the Y-valve be secured in the closed or inboard position (by a padlock, non-releasable tie, or other physical barrier) when the boat is within a designated no discharge zone. Noncompliance may result in a fine (The Ocean Conservatory 2001:25). It has been reported that the use of dye tablets and associated fines for observed discharges in Avalon Harbour, California led to a drop of faecal coliform in the harbour waters from in excess of 16,000 fcu/100ml to 23 fcu/100ml (PIANC 1997:5).
The Queensland coastline spans over 9800km, much of it environmentally sensitive. Due to the large number of sensitive coastal and marine sites in Queensland, including the Great Barrier Reef and numerous Ramsar wetlands\(^{13}\), successive Queensland governments since the mid-1990s have taken “a strong stance” on regulating the discharge of sewage from all vessels, including recreational vessels (English 2008:1650).

**The Queensland ship-sourced sewage policy regime**

The State of Queensland is considered by some to be “at the forefront of Australian jurisdictions with respect to the introduction of ship sourced sewage legislation” (English 2008:1650) and to have “developed world’s best practice in this area” (Croft 2005:3346). While such claims may not be supported by a large number of Queensland’s recreational boaters, they begrudgingly agree that Queensland has developed and implemented the most comprehensive policy regime for managing sewage discharges from recreational vessels in Australia (Tyler 2009:23).

Throughout the 1990s to the mid 2000s, two federal agencies, two state government agencies and a number of local government authorities claimed some degree of regulatory authority over vessel-sourced sewage discharges into Queensland waters.\(^ {14}\)

The *Transport Operations (Marine Pollution) Act 1995* [TOMPA] and its associated *Transport Operations (Marine Pollution) Regulation* [TOMPR] places limits on the discharge of sewage, and other pollutants, from vessels into Queensland’s coastal waters and arguably impacts the most on recreational vessels because the sewage provisions under TOMPA not only

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\(^{13}\) The Convention on Wetlands of International Importance (the Ramsar Convention) was signed in Ramsar, Iran on 2 February 1971. The Ramsar Convention aims address the worldwide loss of wetlands and to conserve, through wise use and management, those that remain. The Convention encourages member countries to nominate sites containing representative, rare or unique wetlands, or that are important for conserving biological diversity, to the List of Wetlands of International Importance (Ramsar sites). Queensland has six of Australia’s sixty-four Ramsar wetland sites (DSEWPC n.d.).

\(^{14}\) These included the Australian Maritime Safety Authority through the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983*; the Great Barrier Reef Marine Park Authority through the *Great Barrier Reef Marine Park Regulations 1983*; Maritime Safety Queensland through the *Transport Operations (Marine Pollution) Act 1995* and associated regulation; the Queensland Department of Environment through the *Environment Protection (Water) Policy 1997* and *Marine Parks Regulation 1990*; and Local Government Councils on the Sunshine Coast through the *Transport Infrastructure (Sunshine Coast Waterways) Management Plan 2000*. Refer Appendix 5 for an overview and detailed comparison of these regulatory instruments.
implement MARPOL’s sewage provisions at the state level but “they go a step further and require recreational and commercial ships less than 400 gross tonnage to also manage ship sourced sewage and contribute towards the protection of our marine environment” (English 2008:1650).

The development of Queensland’s ship-sourced sewage regulatory regime was developed and refined over a number of years amid controversy and opposition from recreational boaters in particular. Figure 5.3 provides a chronology of this process.15

The discussion which follows in this chapter provides an account of the policy journey to arrive at these changes, and the reaction of boat owners and others to proposals regarding the regulation of sewage discharges from recreational vessels. I place a particular emphasis on the discourse that this policy journey generated.

**Figure 5.3:** Chronology of the development, review and implementation of TOMPA (1994-2010)

### Passage of the Marine Pollution Bill and promotion of TOMPA

The first significant mention of the need to regulate the discharge of sewage from vessels in Queensland parliamentary and broader public debates is documented in Hansard in 1993, when opposition backbencher Allan Grice raised the matter as part of the debate on an appropriation bill relating to tourism, sport and recreation expenditure. There had been previous debate and media commentary regarding the need to introduce stricter controls of land-based sewage discharges in the Gold Coast region but this was the first

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15 Appendix 6 provides an overview of the Queensland system for making legislation and subordinate legislation.
relation to the control of discharges from vessels specifically. Grice spoke to the potential negative impacts of sewage discharges from vessels on the tourism industry in his Gold Coast electorate. Grice raised concerns regarding water quality, specifically human coliform counts, and suggested that all new vessels over seven metres should be required by law to install “sewage pump-outs” (no doubt meaning holding tanks with shore-based discharge) in order to maintain the Gold Coast’s “reputation as a clean and healthy destination” (Grice 1993:4767).

While the Member for Broadwater should be acknowledged for bringing before State Parliament an important but hitherto undebated subject, it should be recognised that his interest in the issue was possibly spawned by consultation taking place on these issues by the state’s transport agency to inform the development of the Transport Operations (Marine Pollution) Bill [Marine Pollution Bill], a Government Bill introduced into Queensland Parliament the following year.

The Marine Pollution Bill

Queensland has had legislation regulating the discharge of pollutants into the marine environment since the 1970s; the most significant being the Pollution of Waters by Oil Act 1973 [PWO Act]. The PWO Act covered the discharge of oil and oil products into Queensland waters from both land and vessel sources. The PWO Act was repealed in the mid-1990s. The vessel-sourced pollution components of the Act were considered in the Marine Pollution Bill while its land-based components were absorbed by the new Environmental Protection Act 1994.

For example, in 1991 between five and six thousand Gold Coast residents and other protesters rallied against a decision by the Gold Coast City and adjacent Albert Shire Council to pump 60 million litres of treated sewage effluent off the Southport Seaway. The protesters drew comparisons between the plan and “the horrors of sewage pollution at Sydney’s Bondi Beach” (Mason 1991: 1) and dubbed Surfers Paradise, “Sewers Paradise” (Farmer 1991: 1).

The Clean Waters Act 1971 (Qld) was introduced following a Commonwealth Senate inquiry into water pollution in Australia, however, it should be noted that environmental problems as significant political issues in Queensland were still ‘novel’ at this time. Indeed as late as the late 1980s it has been argued there was little pressure on the state government to act on environmental issues and that its relative inaction on environmental issues reflected this low level of public and government concern (Turton 2010:47).
In addition to addressing vessel-sourced oil pollution, the Marine Pollution Bill broadened the State’s scope of interest to include a range of pollutants in addition to oil. A key driver for this expansion was that the PWO Act was not seen to satisfy contemporary environmental and international marine pollution prevention and control standards; it did not acknowledge MARPOL as the prevailing marine international pollution prevention convention and the associated ship management conventions that had been ratified by Australia since the PWO Act was originally drafted.

The principal objective of the Marine Pollution Bill was “to protect Queensland’s marine and coastal environment by minimising deliberate and negligent discharges of ship-sourced pollutants into coastal waters” (Queensland Parliament 1994a:1). It sought to achieve this objective by giving effect to the MARPOL Convention for large ships and enacting corresponding provisions for smaller vessels. Because the Marine Pollution Bill represented the incorporation of MARPOL into Queensland law, it was drafted to mirror each of its five Annexes—oil, noxious liquid substances in bulk, harmful substances carried by sea in packaged form, sewage, and garbage.

The Marine Pollution Bill contained a range of provisions to include a range of other pollutants in addition to oil. This was promoted as modernising the State’s approach to pollution from vessels and as better reflecting “the changing expectations of an increasingly environmentally aware community” (Edmond 1995:10968).

Following MARPOL, all vessels, large and small, covered by the Marine Pollution Bill were referred to as ships. A ship was defined in the Bill as “a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air cushion vehicles, submersibles, floating craft and fixed or floating platforms” (Queensland Parliament 1994a:91). The Bill proposed three types or classes of ship in relation to its sewage provisions. In line with MARPOL, large ships were defined as ships 200 tons gross tonnage and above. Medium ships were defined as vessels ten metres and longer but less than 200 tons gross tonnage. The final category of small ship included any vessel less than ten metres in length. Under these definitions, recreational vessels were primarily classed as small and medium ships.
The Marine Pollution Bill contained two types of provisions to manage the discharge of sewage from ships into Queensland's coastal waters. The first provision was an operational requirement which involved the declaration of high, moderate and low sensitivity zones which would determine the areas where sewage could be legally discharged. Although not defined in the Bill, it was intended that these sensitivity zones would be defined in the regulation once the Bill had been passed. The purpose of declaring these sensitivity zones and tying discharge prohibitions to them was to:

...circumvent potential health problems and undesirable amenity impacts, in or adjacent to areas of urban habitation, such as canal estates and resorts, coastal embayments and river systems, which are used intensively for recreational boating and other aquatic activities (Queensland Parliament 1994b:13).

Interestingly the sensitivity zones, once designated, were only to be applied in relation to sewage discharges because the discharge of all other forms of pollutant covered by the Bill—such as chemicals, oil and garbage—was to be prohibited entirely within Queensland's coastal waters. The Marine Pollution Bill proposed that it be an offence for large ships to discharge sewage in any of the three sensitivity zones. Under the differential discharge provisions proposed in the Bill, small and medium vessels would be permitted to discharge sewage in low sensitivity zones only, begging the question as to why three sensitivity zones were proposed given that in effect no discharge could occur outside a low sensitivity zone.

The second provision contained in the Bill for managing ship-sourced sewage was a vessel design and infrastructure requirement which mandated that all ships ten metres and longer in length be fitted with a toilet and a holding tank to receive the waste from the toilet to prevent illegal discharges.

It was intended that the legislation would be supported by subordinate legislation in the form of a regulation which would include: provisions relating to the standard of holding tanks and waste reception facilities; define high, medium and low sensitivity areas; provide guidance regarding exemptions for fitting sewage holding tanks if a ship owner could demonstrate that their vessel was unsuitable to be fitted with a holding tank; and, the provision of waste reception facilities (Queensland Parliament 1994a:28).
An unexpected focus on sewage: the passage of the Marine Pollution Bill

Of the seventeen members rising to address the Bill, eleven specifically spoke to the issue of sewage. There was an almost even split of members of the government and those from the opposition benches rising to address the Bill. Given that the Marine Pollution Bill covered three new pollutant categories in addition to oil, parliamentary debate on the Marine Pollution Bill saw a disproportionate level of discussion on its sewage provisions relative to oil and the new requirements for managing chemical and garbage discharges (figure 5.4). This level of mention was also surprising given its relative absence in previous parliamentary debates on maritime safety, marine pollution and coastal tourism matters.

![Figure 5.4: Mentions by pollutant category recorded in Hansard, Marine Pollution Bill debate, 1994](image)

In many respects during the debate, sewage was cast by Members in a different way to the other pollutants addressed in the Bill. This included a disproportionate focus on discharges from recreational vessels (despite the fact the bill considered sewage discharges from all classes and sizes of vessels) and a perceptible difference in the tone and language used to discuss matters relating to sewage pollution relative to other vessel-sourced pollutants.

When introducing the original Marine Pollution Bill the then Minister for Transport stressed that the purpose of sewage provisions of the Bill was to implement:

> ...realistic controls over sewage discharge from vessels of all sizes, to safeguard human health, recreational quality, our domestic and international tourist industry and the ecology of our unique coastal zone in general (Hamill 1994:9683, my emphasis).
However, the management of certain pollutants were cast during the debate as primarily being the responsibility of certain sizes or classes of vessels. For instance, as shown in table 5.1, oil pollution was unambiguously portrayed in the debate as being a problem of big ships and government while sewage management was cast primarily as a problem of and caused by recreational vessels.

The references to oil were largely in relation to the need for government-led oil spill prevention activities including the monitoring and control of coastal shipping traffic through the extension of activities such as compulsory pilotage and vessel tracking, and oil spill response activities under the *National Plan to Combat Pollution of the Sea By Oil.* By contrast, sewage controls were predominantly portrayed as a problem of the small or recreation vessel and their “irresponsible boat owners” (Clark 1995:11065). Many of the calls to control sewage discharges from recreational vessels were direct:

> …what size craft, what location and what activities are actually causing most of the real problem…The selection of vessels in excess of 10 metres would seem to me to exclude many of the vessels around Queensland that could be causing most of the problems (Laming 1995:10972).

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Table 5.1: Mentions of specific vessel-sourced pollutant categories in Parliamentary debate on *Marine Pollution Bill*, 1994

<table>
<thead>
<tr>
<th>Pollutant Categories</th>
<th>Specific Detailed Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Big Ships</td>
</tr>
<tr>
<td>Chemicals including direct references to harmful and packaged substances and noxious liquid substances</td>
<td>1</td>
</tr>
<tr>
<td>Garbage</td>
<td>-</td>
</tr>
<tr>
<td>Oil</td>
<td>11</td>
</tr>
<tr>
<td>Sewage</td>
<td>2</td>
</tr>
<tr>
<td>Ballast water</td>
<td>5</td>
</tr>
</tbody>
</table>

The references to oil were largely in relation to the need for government-led oil spill prevention activities including the monitoring and control of coastal shipping traffic through the extension of activities such as compulsory pilotage and vessel tracking, and oil spill response activities under the *National Plan to Combat Pollution of the Sea By Oil.* By contrast, sewage controls were predominantly portrayed as a problem of the small or recreation vessel and their “irresponsible boat owners” (Clark 1995:11065). Many of the calls to control sewage discharges from recreational vessels were direct:

> …what size craft, what location and what activities are actually causing most of the real problem…The selection of vessels in excess of 10 metres would seem to me to exclude many of the vessels around Queensland that could be causing most of the problems (Laming 1995:10972).

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18 Many members of parliament who responded to the Marine Pollution Bill’s oil provisions invoked evocative images of the so-called foreign flagged ‘ships of shame’ (see PCA 1992 for details of the Ships of Shame inquiry) and the Alaskan Exxon Valdez and Australian Kirki and Oceanic Grandeur oil spill incidents. At the time of this debate the 1991 Kirki incident off the Western Australian coast was the largest oil spill in Australian history and saw approximately 17,000 tonnes oil spilt. Before this the largest Australian oil spill was caused by the 1970 grounding of the Oceanic Grandeur in Queensland’s Torres Strait when approximately 2,000 tonnes of crude oil was spilt. To manage the Particularly Sensitive Sea Area declared in 1990, the Queensland and Commonwealth Governments established a suite of measures to minimise the risk of a maritime accident and associated pollution and damage including compulsory pilotage (the need for a ship to carry a licensed marine pilot with expert local knowledge) and the establishment of an interactive mandatory ship reporting system (Holden, Ross & Mansell 2000).
Such a view also enjoyed bipartisan support with a member of the government agreeing that “his [Laming] statement that the smaller craft are some the major polluters is just” (Bird 1995:11070).

**Passing the Marine Pollution Bill and proclaiming TOMPA**

The sewage provisions of the Marine Pollution Bill were promoted by the Minister introducing the Bill as being “in line with community expectations” and as providing:

> …a sensible balance in dealing with both ships and small craft in acknowledging that, while quantities of ship sourced sewage are relatively small from an environmental standpoint, the adverse impacts on Queensland’s coastal urban habitation, aquatic activities, public health considerations and the tourism industry are very real (Hamill 1994:9683).

The Bill was passed with bipartisan support on 23 February 1995 and all clauses in relation to its sewage provisions were agreed to as read without amendment, although there was some discussion regarding the clauses relating to holding tanks and concern that ship builders might exploit the ten metre rule by building vessels less than this length to avoid having to install one. All parts of TOMPA commenced at its assent, with the exception of its sewage provisions which were scheduled to commence on 1 January 1998 for new ships and 1 January 2000 for existing ships.\(^\text{19}\)

Comments made in the parliamentary debate by both sides of the house suggested that the Bill had broad public, political, community and boater backing which “demonstrated absolute support for the principles proposed” (Hamill 1994:9681). However, the political reality was that the idea of regulating the discharge of sewage from ships in Queensland was controversial, particularly with respect to its plans for recreational vessels, because it directed public and regulatory attention to the sewage disposal practices of the recreational boating fraternity who were put in the position of having to justify what was once accepted, or at least ignored, common boating practice.

\(^{19}\) The Acts Interpretation Act 1954 s15A states that an Act commences on the date of Assent unless the Act expressly provides otherwise.
To be fair, the State member for Greenslopes noted some dissenting views but downplayed the significance of these:

*I am very pleased that this legislation did not create major hysteria among small boat owners through the State…There was certainly some humour expressed about the prospect of a number of small tinnies, as they are called—aluminium boats—being subject to major requirements to install sewage disposal facilities on board. I believe that hysteria was placated very quickly when the announcements were made about the legislation. Throughout Queensland, people with tinnies were told that they had nothing to worry about and would not be required to include major installations on their craft* (Fenlon 1995:10980).

This account of begrudging acceptance by the vast majority of recreational boat owners does not accord with what was actually occurring on the water. A groundswell of boater concern resulted in a group of recreational boaters seriously lobbying, with limited success, against the sewage provisions of the Bill before it was tabled. This dissent simply intensified after the Act was passed.

The Bill had foreshadowed the development and implementation of a government-driven education program to ensure that a comprehensive level of awareness was established within the boating community regarding the scope of the new legislation and the importance of responsible marine environmental management by all sectors of the boating industry, including recreational boaters. The Queensland Government promoted the passage of TOMPA through a range of information sheets and a brochure released under the banner *Think About It!!!.*

![Image 5.1: Think about it!!! [brochure 1995]](image 5.1)

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The brochure was quite broad and simply provided an overview of the Act (QT 1995a). The accompanying information sheets (QT 1995b,c,d,e) provided more detailed information according to ship size with different sheets focussing on the requirements for different classes of vessels across the range of pollutants covered in TOMPA including garbage, chemicals, oil and sewage. The sewage component of these materials focussed on the content of the legislation in terms of its vessel design requirements (i.e. mandatory installation of holding tanks and fixed toilets) but provided very little guidance in terms of its operational requirements (i.e. the designation of sensitivity zones). The release of these materials did little to quell the rumblings of concerned recreational boaters.

Despite the formation of an inter-agency governmental working group to progress matters associated with the designation of sensitivity zones, by mid-1997 amendments to the subordinate legislation defining the sensitivity zones had still not been drafted. Queensland Transport, the department responsible for the drafting and enforcement of the Act, had started receiving considerable backlash from recreational boaters and others regarding the lack of direction regarding the illegal discharge of sewage from vessels and the need to fit sewage holding tanks to certain vessels. Recognising that TOMPA’s sewage provisions were considered impractical by sections of the recreational boating community and would consequently achieve low compliance (QT 1998a:2) the department commenced a legislative review and public consultation process to amend the legislation, even before the sewage provisions, had commenced.

**Reviewing TOMPA’s sewage provisions**

In mid-1997 Queensland Transport began a review of TOMPA’s sewage provisions to ensure that the Act was “practical and as fair as possible for the boating and shipping community, while still meeting its environmental obligations” (QT 1998a:1). While it is true that the Bill was originally passed under a Labor government and the review was commenced under a Coalition government, this is unlikely to have been a significant factor in the decision to initiate the review. More significant is likely to have been the absence of supporting direction in the *Transport Operations (Marine Pollution) Regulation 1995*; specifically a lack of
progress in the definition of sensitivity zones and the fast approaching implementation
deadline for the mandatory installation of holding tanks on new ships of 1 January 1998.

Because nil-discharge areas or sensitivity zones where sewage could not be discharged
were not defined in the regulation there was no legal framework which prevented vessels
from discharging directly into any coastal waters. This resulted in a situation where even
if a holding tank was installed onboard a vessel as required by the Act there were no
effective provisions to prohibit discharges (West 2004:140) or to make boaters use them.
There were also very few sewage pump-out stations in Queensland marinas to receive
the sewage waste from holding tanks in the event that they were used as intended.

Despite these implementation anomalies, the review was prompted in large part as a
response to the increasingly vocal recreational boater opposition to the sewage
management provisions of the Act who argued that “the high level of inconvenience to
recreational craft would result in a low level of compliance should the government implement this system”
(Boast in Keenan 1997a:118). The Queensland Small Craft Council [QSCC] was
particularly vociferous and by late 1996 had begun promoting their own alternate policy
on sewage disposal (QSCC 1996) to their seventeen member organisations20 and
reported 45,000 members (QSCC 1997a:3). The QSCC promote their alternate policy of
sewage disposal from recreation craft as holding “a middle ground that is more practical, will
gain a higher level of compliance and is more likely to achieve a good environmental outcome”
(Boast in Keenan 1997a:118). Indeed,

\[
\text{The perception by boat owners in Queensland is that the Department has jumped headlong into an issue without discussing with the relevant governing authorities to see if, an actual problem exists as compared to a perceived problem (Queensland Yachting Association 1997).}
\]

20 These organisations included the Boating Industry Association of Queensland; Brisbane 18 Foot Skiff Sailing Club; Little Ship Club; Mooloolaba, Moreton Bay, Redland and Southport Yacht Clubs; Moreton Bay Trailer Boat and Redlands Boat Clubs; Queensland Cruising Yacht Club, Queensland Yachting Association and the Royal Queensland Yacht Squadron (QSCC 1997a).
All Hands on Deck for a Cleaner Coast: initial review process, 1997-1998

The initial review process involved implementing a state-wide consultation campaign to obtain the views of a range of stakeholders and the public regarding TOMPA’s sewage provisions (figure 5.5).

![Flowchart showing consultation process]

**Figure 5.5:** Key elements of the consultative and policy making process (1997-1998)

The consultative process adopted commenced in mid-1997 with the mail-out of a brochure featuring the tag-line *All hands on deck for a cleaner coast,* designed to promote the planned legislative review process (image 5.2). Approximately 5000 brochures (QT 1997a) were sent to a broad-cross section of stakeholders and stakeholder organisations including recreational boating groups, environmental groups, marinas and boat harbours, local councils, commercial and recreational peak bodies, and aquaculture and mariculture organisations. Individual registered boat owners were not directly targeted other than through the general media and recreational boating groups.

The brochure was accompanied by a letter outlining the purpose of the consultation process and a postcard survey (image 5.3). This survey sought to gauge interest in key issues associated with the TOMPA’s sewage provisions. It also sought to provide respondents with the opportunity to nominate to be involved in the policy review process by completing a detailed questionnaire, attending a consultation workshop in their local area to discuss their issues, or receiving information on the policy review process. More than 600 indicated a willingness to complete the detailed 20 question questionnaire. The questionnaires were distributed in late 1997. Approximately half the distributed questionnaires were completed and returned to the independent market research company for analysis. The results of the questionnaire indicated that more than 80% of the 300 survey respondents felt that it was reasonable for the government to
introduce laws that prevented the discharge of raw sewage from boats in certain areas (Yann Campbell Hoare Wheeler 1997a:1), but many refused to answer questions relating to their current and intended sewage management practices.

In early 1998 twenty-two workshops were conducted by government officers in regional boating centres in South East Queensland (Brisbane City, Gold Coast, Manly, Mooloolaba, Redcliffe and Tin Can Bay), the Great Barrier Reef (Airlie Beach, Bowen, Cairns, Gladstone, Hervey Bay, Lucinda, Mackay, Maryborough, Port Douglas, Townsville and Yeppoon) and the Torres Strait (Thursday Island). A personal invitation to attend a workshop was sent to those who had indicated their interest in attending a workshop on the postcard survey. The workshops were also advertised in local and regional newspapers. The workshops were designed to begin canvassing support for possible amendments to the Act, most particularly with relation to changes in requirements for the mandatory installation of the holding tanks and the designation of no discharge areas. The majority of the workshops were well attended, with participants representing a mix of recreational boaters, live-aboard boaters, commercial operators and
environmental interests. The concept of the workshops, and the consultation process overall, was generally supported by the boating community who noted: ‘This time, rather than letting some the impractical theorists run wild, the department will listen to the people who create the problem and who subsequently have to live with it – boaties’ (Keenan 1997b:155).

**Unnecessary, unfair and impractical: recreational boater responses**

Despite the Government’s emphasis that the review was concerned with amending TOMPA’s sewage provisions and not abandoning them, there continued to be a debate, led by recreational boater activists, questioning the need for sewage regulations for recreational craft.

Recreational boaters claimed that there was “no evidence to show that the direct discharge of marine toilets from small craft into the waterways in Queensland is causing any environmental or health problems” (RQYS 1997:1). They suggested that there was a lack of scientific evidence or research to support the need for regulations. Recreational boaters also argued that when compared to the volume of land-based sources sewage discharges from recreational vessels could be “likened to a drop in a few thousand buckets” (QSCC 1997b:2). On this basis recreational boaters contended that the sewage provisions were an over-reaction to what they considered to be a “non-existent problem” (QSCC 1997c:2) and a waste of government expenditure and effort on a “comparatively low impact source [of sewage]” (Boast in Keenan 1997a:118).

Despite the State’s purported aim of instituting the legislative review and consultation process to make the sewage provisions of the act more “environmentally sound; safe; practical; operationally effective; and enforceable” (QT 1998a:3), recreational boaters perceived the review of the legislation as an ideal opportunity to lobby to have the sewage provisions removed entirely, thereby allowing them to continue to discharge sewage in an unrestricted manner. Recreational boaters argued that ship-sourced sewage was a “non-issue” and that it did not need to be managed, particularly through the installation of sewage holding tanks onboard vessels. They argued that the cost and risks associated with holding tank installation and use were not commensurate with the potential health and environmental risks posed by the unrestricted discharge of sewage, particularly from recreational boats.
In short, they believed that the Act was “unnecessary, unfair and inequitable” (QSCC 1997d:1). Recreational boaters protested that they were already over-regulated and should be permitted to self-regulate and make their own decisions as to where they discharged both raw and treated sewage, arguing that boaters were in the best position to make such decisions due to their boating experience and the fact that they are, by nature, environmentally conscious (Kennan 1997b:155), thus making a law unnecessary to ensure environmental protection.

The QSCC’s concerns about the sewage regulations and their alternative proposals were the focus of a media release prepared by the Brisbane-based public relations firm Brumfield Bird & Sandford (QSCC 1997e). The media release was circulated to all local media outlets (including newspapers, television and radio stations) “pointing out Qld Transport’s new proposed regulations to solve a problem which does not exist” (QSCC 1997c:2). A series of Courier-Mail and Sunday Mail articles, with many advancing the QSCC position, were prepared by boating columnist John Keenan21 who strongly questioned the necessity and practicality of the sewage regulations. Keenan also characterised the QSSC as being “highly respected in the marine industry and…[as having] put a lot of thought and research into [their] suggested policy for sewage disposal for recreational craft” (Keenan 1997a:118). On the back of such positive and uncritical publicity, the QSCC advised their delegates that:

It is more important that we keep the pressure on the relevant Government Departments by publicising through Club magazines and newsletters of the Council’s actions this will give great assistance. We must keep the pot boiling! (Callanan 1998:1).

The very public nature of the recreational lobby’s protests and the lack of a workable set of regulations to enforce sewage discharge prohibitions also encouraged a small but passionate set of environmentalists to lobby the department to ensure that the sewage provisions of the Act were not watered down and would be enforced. Many community and environmental groups concurred with boaters that there was a need to improve the quality of land-based sources of sewage discharges by upgrading municipal sewage treatment facilities to tertiary standard. However, they also believed that the contribution

21 John Keenan was the chief boating writer for the Sunday Mail newspaper and was known by the nautical moniker The Old Salt. For a representative sample refer Keenan 1997a,b,c; 1998a,b,c; 1999a,b; 2000a,b.
of recreational vessels, although small, also needed to be controlled. They advocated a change in recreational boaters sewage management practices arguing that the:

...disposal of raw and treated sewage from the many recreational and commercial boats that use Moreton Bay compounds this pollution problem...[and] there is a need to change the way sewage is treated and stored on boats and how and where it can be discharged (AMCS 1997:1).

In response to the review and the recreational boaters’ alternate policy, the Australian Marine Conservation Society (Moreton Bay Branch) prepared their own draft policy on sewage disposal from recreational and commercial boating in Moreton Bay. This alternate policy called for all toilets in recreational and commercial boats to be macerating toilets, and all vessels to install, within three years, on-board holding tanks with a minimum capacity of seven days for the average load of persons. They also called for the appropriate zoning of sensitive and non-sensitive areas of the Moreton Bay Marine Park within one year and for the installation of shore-side pump-out facilities and onshore toilet facilities in areas of high or intensive public use (AMCS 1997).22

**A position paper for public comment: the State’s revised position outlined**

Feedback gained through the consultative mechanisms were used to refine a series of proposed amendments to TOMPA’s sewage provisions which were outlined in a Position Paper (image 5.4). The Position Paper (QT 1998a) was made available for public comment in April 1998 and promoted in the local press and through a press release. More than 2,200 copies of the Position Paper were mailed out to a variety of stakeholders including recreational boat owners, commercial fishing operators, and environmental groups. The full Position Paper was also made available on the departmental website, a pioneering consultative practice for the time, given that in 1998 only fourteen per cent of all Australian households had access to the Internet from home and only seventeen per cent of all persons eighteen years and over frequently used a computer outside the home to access the Internet (ABS 1989:3).

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22 The AMCS (1997) also called for the appropriate zoning of sensitive and non-sensitive areas of the Moreton Bay Marine Park within one year and for the installation of shore-side pump-out facilities and onshore toilet facilities in areas of high or intensive public use.
The Position Paper provided detailed information on the role of government in regulating sewage discharges from vessels, including a discussion of the role of different agencies and tiers of government and TOMPA’s sewage provisions at the time. This was followed by five thematic sections designed to address key issues associated with the sewage provisions as they stood. These themes were developed based on the comments received during workshops and other consultation activities. The key issues were deemed to be: whether the sewage provisions of the Act were necessary; to which type of vessels the Act applies; the use of different sewage management devices; areas where sewage discharge would or should be prohibited; and the use of sewage pump-out facilities. The discussion within each of these sections was structured the same way. Each broadly outlined the issue, a catalogue of concerns relating to the issue raised during public consultation, a discussion on the issue, a discussion on the government’s proposed position in relation to the issue, and the proposed outcome including any proposed legislative changes.

Overall, the tone of the document was relatively informal and relaxed by quite literally taking the position of posing questions and inviting comment. As can be seen in the image above, throughout the Position Paper information boxes were used to highlight key information or to provide an explanation of terms of concepts used. A two page summary was provided at the end of the Position Paper which summarised the impacts to boaters of the proposed position if it were to be adopted. Through the stylistic image of a coastline which bordered the outer edge of facing pages, it casually reinforced the
idea of the document as being about a cleaner coast. Reminiscent of the European beach cleaner however, the idea of a cleaner coast appeared to be predominantly linked to aesthetic or amenity factors rather than environmental or public health issues.

The Position Paper used graphic designed concept maps, based on composite imaginary locations, as exemplars to illustrate the proposed discharge provisions for each class of vessel. In some respects being based on placeless locations assisted the position paper to present a less defensive or confrontational stance than might otherwise have been the case, and to avoid a focus on individual locations as opposed to more broad-brush conceptual understandings of the issues involved and the potential impacts of the proposals.

Interested individuals and organisations were invited to comment on the Position Paper using the preformatted response form that was issued with the Position Paper, or as a freeform submission. The response form guided those completing it to respond to questions relating to specific provisions in the Act. These were linked to the key issues raised in the Position Paper such as: the need for the sewage provisions; which types or sizes of vessels the Act’s sewage provisions should be applied to and in what circumstances; the use of ship-sourced sewage management devices (including holding tanks and onboard sewage treatment systems); and, areas where sewage discharges should be prohibited. Space was also provided for respondents to provide more general comments on matters of specific interest to them.

In terms of differences to TOMPA’s original approach to the regulation of sewage discharges from recreational vessels, the proposals outlined in this Position Paper were notable in four regards. The most significant difference to the existing legislation was the proposal to abandon the mandatory requirements for certain vessels to install a holding tank and toilet. This opened the door for boaters to employ a range of other sewage treatment, holding and disposal devices such as sewage treatment systems and the use of portable toilets in place of holding tanks. The proposals also signalled a move toward focussing on the potential sewage generating capacity of a vessel rather than its dimensions, and saw a change in the way that predominantly recreational vessels were
classified, based on the number of people carried rather than the length of the vessel. This idea of the sewage generating capacity of a vessel was tied to the move away from considering all sewage discharges to be equal and introducing the concept of approved effluent (referring to sewage that had been treated to a certain standard) and unapproved effluent (any sewage discharges that do not meet this standard). Finally, this focus on different qualities of sewage was reflected in the range of discharge prohibitions proposed in terms of the specific locations where certain standards of sewage could legally be discharged.

**Not far enough!: recreational boater initial responses to the Position Paper**

In addition to a large number of detailed representations made directly to the Minister for Transport (referred to as ministerials by government staff), 156 formal written submissions were made on the Position Paper (many of these using the preformatted response form issued with the Position Paper). While recreational boaters supplied the majority of formal submissions and ministerials received, environmental groups, commercial operators, state government agencies and local governments were also represented.

Analysis of the submissions reveals that, despite proposals to base the sewage management provisions on the potential sewage generating capacity of a vessel instead of its length, there continued to be strong resistance to the inclusion of any requirement to install sewage holding tanks. These objections were made on the basis of: potential odour problems; the cost of installation, maintenance and pump-out; a lack of effective design specifications, particularly for smaller vessels; and the inability to install holding tanks of an appropriate size due to vessel design constraints. Other significant issues raised during this consultation period included the need for different rules for different types of ship, based on their sewage-generating capacity and potential impact, and issues associated with the installation and use of sewage pump-out facilities. In short, despite considerable movement by the government in its position, recreational boaters raised much the same objections as before the Position Paper was released, a relatively asymmetrical response by any standard.
With the exception of the proposed nutrient levels from treatment systems and the potential for the designated no discharge zones to prohibit discharge in the majority of the Southern Moreton Bay and similar waterways, the QSCC felt that the new position was “much more commonsense” (Boast 1998:1).

Even the Old Salt, John Keenan (1998a:133), seemed pleased with the proposals, announcing to his readers:

Yes, it happens. HOORAY! Commonsense at last from a government department, this time the marine division of Queensland Transport…The paper recommends sensible, workable solutions to a world-wide problem. Holding tanks on small vessels, for instance, would no longer be mandatory. And the definition of ‘small’, ‘medium’ and ‘large’ ships as applied in relation to sewage discharge and/or treatment would no longer relate only to length. The paper proposes new definitions would define ships based on their sewage-generating capacity.

The position of boaters expressed in the media displayed a begrudging acceptance of many elements of the new position but as Keenan’s change of tone between 1998 and 1999 suggests they were still not pleased with the outcome that the sewage regulation was not repealed entirely.

The stink raised two years ago by the State Government’s move to force recreational boat owners to install sewage holding tanks refuses to go away…Everyone agrees controls are necessary, including boaties. They agree with much of QT’s position paper – no disposal of treated or untreated effluent in marinas, harbours or rivers, or within 500m of the shore or in less than 5m of water. But they are concerned how it will be implemented and who will pay. If history is any guide, only one person will pay — the boatie (Keenan 1999a:130).

And just when it seemed that the issue have been resolved, the QSCC began advising members that the Department of Environment was:

…not prepared to accept the results of the public consultation process conducted by Queensland Transport on the Marine Pollution Act Review…despite three years of consultation, Queensland boat owners may be back to sewage holding tanks and shore-side pump-outs (Stanaway 1999a:23).
Despite the inaccuracy of this statement and government requests for the QSCC to print a retraction to this effect in club newsletters, the QSCC advised members of their intention to engage technical and public relations consultants to campaign against the Act and their intention to establish a fighting fund funded through member contributions (QSCC 1998).

The second flush: further consultation and a scientific approach

Due to further pressure from the recreational boating lobby, following the release of the 1998 Position Paper and the consideration of the submissions made on its content, a second round of consultation was announced in late 2000 to further research and develop amendments to TOMPA’s sewage provisions. In the earlier consultation period, concerns had been raised by boaters regarding the lack of scientific basis for TOMPA’s sewage provisions. In this consultation phase, the government countered these concerns with a number of scientific research activities. The second consultative process employed similar consultative methods to those used during the previous consultation phase and centred on the preparation and distribution of a Position Paper, however, importantly it also featured consultation with a formal Vessel Sewage Key Stakeholder Group (figure 5.6).

An assessment of available sewage treatment devices was undertaken alongside a feasibility study to evaluate trends in technology for sewage treatment systems to determine whether systems may achieve the treatment standards proposed in the

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23 In addition to their formal submission, the Department of Environment confirmed in writing to Queensland Transport that they supported the consultation process undertaken.
position paper. Computer and field modelling was also undertaken to establish appropriate distances to protect sensitive areas from effluent discharges from vessels.\textsuperscript{24} This research was referred to as consultancies and undertaken by independent academic researchers and engineering consultancy firms to underscore the objective, scientific and professional value of the work.

A key stakeholder group was also formed, which “worked collaboratively to achieve a consensus on appropriate future management arrangements” (Regulatory Impact Statement 2003:2). The thirty-two member key stakeholder group\textsuperscript{25} included the QSCC, a number of other recreational boating clubs, and a number of government agencies among others. This group was formed, in part, to address the “clear divergence of opinion as to appropriate measures for vessel-sourced sewage management” evident in the earlier rounds of consultation (MSQ 2003:2). The group provided input to develop proposals that were subsequently included as amendments to TOMPA. At the request of stakeholder group members, departmental officers also met with representatives from a number of recreational boating organisations to clarify aspects of the proposed position and to obtain a further understanding of the concerns of the boating community.

**A position based on studies: the 2000 Position Paper**

A new position paper was developed which outlined the revised state’s proposals with respect to vessel-sourced sewage discharges (QT 2000). The position paper was mailed to 1574 interested individuals and organisations. In many respects, at least contrasted to the earlier position paper, the new position paper took a much more bureaucratic approach in its language, tone and presentation. It abandoned the use of the *all hands on deck for a cleaner coast* slogan and focussed more on the technical aspects of the proposals. Through this paper the State no longer posed questions or took a discursive or conversational tone. Instead it tended toward statements of fact which reflected the

\textsuperscript{24} Modelling of sewage discharge plumes from ships was undertaken by the engineering consultancy firm Lawson Treloar (2000, 2001). Research into sewage treatment devices was undertaken by ECOS Consulting Australia (1999a,b). The Sustainable Tourism Cooperative Research Centre was also engaged to undertake research into ship-sourced pollution in South East Queensland (Warnken & Byrnes 2000), recreational and tourist vessel traffic in South East Queensland’s smooth coastal waters (Warnken & Leon 2006a) and local council’s capacity to accept sewage wastes for treatment to support the implementation of legislation.

\textsuperscript{25} Refer Appendix 7 for a full list of member organisations.
findings of the technical consultancies undertaken. As can be seen in image 5.5, the maps provided in this position paper were scaled cartographic marine charts which mapped how the proposal would apply in practice in actual locations such as the smooth water limits of the Trinity Inlet in the Cairns region.

The new position outlined in this position paper continued to propose the abandonment of the mandatory requirement for vessels to install a holding tank and toilet and to promote the use of a range of sewage treatment, storage and disposal options. The new position paper also saw a continued move toward acknowledging the potential sewage generating capacity of a vessel based on its complement of passengers but saw the maximum number of people onboard drop from 20 to 15 to be eligible for less stringent discharge requirements. However, this Position Paper also saw a reintroduction of a vessel length component, this time of six metres, to determine discharge requirements. As a result, the discharge regime proposed was highly complex, based on a combination of the location of a vessel at the time of discharge, the vessel length, the passenger carrying capacity of the vessel, and the standard of the sewage discharged. Sewage was classed as either treated effluent or untreated effluent. For sewage to be considered to be treated it had to meet a set standard for faecal coliform levels only, as opposed to the earlier proposal to include a range of parameters including pH, suspended solids, biochemical oxygen demand, dissolved oxygen, and nutrient levels. Untreated effluent was classed as any sewage which did not meet this standard.
Responses to the revised position

In addition to a number of detailed ministerials, 297 formal written submissions were made in response to the proposals outlined in the new Position Paper. As occurred in the previous consultation phase, many of these submissions were made using the preformatted response form that was issued with the Position Paper. Recreational boaters were again well represented in the submission sample, providing more than two-thirds (201) of the formal submissions made. A large number of submissions were received from members of the Royal Queensland Yacht Squadron, Wynnum Manly Yacht Club, Moreton Bay Boat Club and the Queensland Small Craft Council; all of which were represented on the key stakeholder group.

A vessel owner survey seeking information on current sewage management practices and expected future practices was also distributed with the Position Paper and completed by 159 recreational boat owners, more than half of whom were yacht owners. Given the strong representation of south-east Queensland boating groups in the submission sample, it is not surprising that the majority (78%) of respondents used the waters of Moreton Bay, with the rest scattered throughout Queensland. The majority of respondents had straight-through toilets installed which discharge directly into the receiving waters (65%, and a further 11% with a macerator) (QT 2001a:3).

The recreational boating lobby, with the QSCC at the helm, took credit for “convinc[ing] Queensland Transport the proposed regulation, to come into effect from January 1, wasn’t practical” (Kennan 1999b:117) and for forcing the government remove the mandatory holding tank requirements and allow the use of onboard sewage treatment systems. However, many in the recreational boating community were still not happy with having to manage their sewage discharges. They believed that the proposals were simply the thin edge of the wedge and that they would soon be expanded to become more stringent if boaters agreed to these changes.

They would rather lay the problem at the door of the poor old boatie…Take the Old Salt’s word for it: in the not too distant future it will be illegal to dispose of any effluent from a boat not on the open seas. Imagine what this will do to recreational boating in places like Moreton Bay, the Whitsundays, the Gold Coast and lakes and rivers. It’s all very well intentioned of the environmentalists to protect our heritage, but blanket
bans on what people are allowed to do and not do should be backed up with suggestions and/or mechanisms on solving the problem (Keenan 2000a:126).

These concerns also extended to an unwillingness to have any physical contact with their sewage waste, either through pump-out holding tanks or emptying the contents of portable toilets.

*Boaties were expected to take holding tanks full of sewage off their boats, row ashore or walk up a marina, put the tanks in the boots of their cars and then dispose of the raw effluent in shore-based pumping stations—all without help or protection* (Keenan 1999b:130).

Indeed, in the individual public submissions and survey responses, many recreational boaters continued to make clear their intention to refuse to use a sewage pump-out station even if one was made available, with more than three quarters (77%) of survey respondents taking this position (QT 2001a:3). However, not everybody supported the removal of the mandatory holding tank requirements or felt that the law were unfairly targeting recreational boaters. Councils and environmental groups criticised the moves to remove the mandatory holding tank clause (Lawrence 2002). Reports in *The Courier-Mail* opined that:

*Swimmers could find themselves in murky waters because of moves to review proposed controls over sewage. A Queensland Transport paper has recommended the scrapping of plans — already delayed by two years — to force the installation of sewage holding tanks in small boats over 10m in length. At present few controls exist outside marinas over the discharge of effluent from small-medium boats. But new rules drafted in 1995 to address the problem are now in doubt. Their targets for on-board effluent treatment have been lowered significantly, allowing for faecal coliforms at levels six times higher than those considered safe for swimming and 76 times higher than those suitable for oyster-growing. In some cases, boats will still be able to discharge raw sewage at least 500m from swimmers, boat ramps or oyster farms* (Ryan 2001:6).

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26 These findings are consistent with those of a study undertaken in US state of Pennsylvania (Shafer & Yoon 1998) which found that recreational boaters are reluctant to use these facilities for a number of reasons including the price and location of pump-out stations, the refusal of dockhands to pump for them and the inconvenience caused by their use.
There was a particularly strong community and local government push in the Sunshine Coast region to strengthen the discharge laws in that specific region, with Councillors from councils in the Sunshine Coast and Pumicestone Passage areas “waging war against raw sewage being dumped from boats in to popular Sunshine Coast waterways” and “calling for stricter controls to stop a state sanctioned practice” (Carew 2000:5). The councils claimed that:

*Queensland Transport’s proposed changes had been driven from the particular interests of the boating community and not other users. They pointed out that stringent controls applied to land-based activities, and said regulations should be no less stringent for watercraft. The proposed changes perpetuated an unacceptable risk to waterways (Noosa Journal 2001a:3).*

The Councils claimed that:

*The Transport Department’s extraordinary proposals allow types of pollution from vessels that would be banned if they came from shore…it is therefore unreasonable for vessels to discharge effluent directly into waterways, when discharges from land-based installations are prohibited for health and environmental reasons. The Council wants all effluent contained on vessels and discharged to shore-based facilities (Noosa Journal 2001b:4).*

Local government leaders called for “a blanket ban on boaties releasing sewage into Moreton Bay” and the Brisbane Lord Mayor called the state government’s proposals “a slap in the face to the community” (Heywood 2002:5). Recreational boaters responded that:

*There was no reason for large vessel not to have sewage holding tanks, but it was impractical to expect ‘a guy in a 12ft tinnie’ to carry around a porta potty. We are certainly not in favour of having sewage floating around…but there has to be some sense behind these things. (Heywood 2002:5)*

While it was the government’s intention that TOMPA’s sewage provisions apply across Queensland, the Act specifically did not limit another law imposing more stringent sewage management requirements. Commencing on 1 January 2001, under Section 13 of the *Transport Infrastructure (Sunshine Coast Waterways) Management Plan 2000*, all vessels used for living aboard (whether temporarily, intermittently or permanently) using the Noosa River and Pumicestone Passage were required to be fitted with a waste-holding system (defined as a waste-holding tank connected to each source of sewage or wastewater on the vessel). The Plan also required the waste to be contained onboard until disposed of at an appropriate waste reception facility, and that a written record be kept of the place
and time of disposal and the quantities of waste disposed. Effectively this meant that many vessels operating in these Sunshine Coast waters had to be fitted with a holding tank or have a valve fitted to make sure the toilet could not operate.

**Turning proposals into law: remaking TOMPA’s sewage provisions**

While TOMPA was seen as “a valiant effort to address serious marine pollution issues” (Laming 2000:572), the legislative review process and its two significant rounds of consultation resulted in significant amendments to TOMPA’s sewage provisions (figure 5.7). TOMPA’s sewage provisions were amended through a number of omnibus bills, known as Transport Legislation Amendment Bills or TLABs. These kinds of Statute Law (Miscellaneous Provisions) Bills are used to make minor amendments of a housekeeping nature to a number of pieces of legislation at the same time. Matters are suitable for inclusion in a Statute Law (Miscellaneous Provisions) Bill “only if they are concise, minor and non-controversial” (DPC 2009:2.6). TOMPA’s supporting Regulation was also updated to support the changes introduced through these various Bills.

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**Figure 5.7: Key elements of the marine sewage legislative amendment process**
Preparing the groundwork for change: TLAB 1999

The 1999 TLAB inserted a new section into TOMPA, requiring all vessels 400 tons and heavier or designed to sleep at least fifteen persons to have an onboard waste management plan, and the installation of any equipment necessary to implement the plan (Queensland Parliament 1999:48). The inclusion of this clause in the Bill was characterised as an opportunity to impose “some responsibility or ownership to shipowners to get their act together in minimising pollution” (Nuttall 2000:567). However, given its applicability to only larger vessels which were unlikely to be recreational vessels, John Keenan and others actively encouraged recreational boaters not to “rush into spending hundreds of dollars installing a holding tank – not that many will!” (Kennan 1999a:117) while waiting for the review to be completed and the new legislation to be drafted.

Holding ground while waiting for the new marine sewage laws: TLAB 2001

The 2001 TLAB amendments made minor alterations to TOMPA’s sewage holding tank clause by allowing some ships to be exempted from installing a holding tank if the Chief Executive of QT deemed the vessel unsuitable for a tank. Changes were made to expand the range of individuals or “culpable persons” that could be charged for illegally discharging sewage. Prior to these changes, only the ship’s master or owner were criminally responsible for sewage discharge breaches under TOMPA. These amendments extended responsibility to include any crew member causing sewage pollution, unless carrying out instructions from a master or other authorised person (Queensland Parliament 2001a:19).

From 1 January 1998, all new ships ten metres and longer were still required by law to install a toilet and holding tank. Provisions relating to the compulsory installation of holding tanks on these existing ships were due to come into effect on 31 December 2001. Because a final legislative position had not yet been put to parliament, in late 2001 the date for existing ships was extended to 1 July 2001 by the Transport Legislation Amendment Act 2001. The Minister for Transport & Main Roads announced that while the requirement for vessels ten metres and over to be fitted with a toilet and holding tank (as required under the yet unchanged Act and Regulation) had been extended for 6 months, any vessel built after 1 January 1998 or any new vessel of that size being built at
the time would still need to comply with the existing rules and would still be legally required to fit both a toilet and a holding tank (Bredhauer 2001). The decision to extend the deadline was well received by boating organisations who stated that:

_The Minister’s decision is good news and will help responsible boaties comply with the government’s wishes. It will also allow ample time for the legislative review of the Marine Sewage Act to be passed_ (McCully 2001:11).

While waiting for the more significant amendments that would be introduced through the 2002 TLAB, Queensland Transport encouraged vessel owners and operators in its _Vessel Sewage Legislative Changes Update_ (QT 2002) to:

- Avoid discharging sewage in swimming areas, areas used for recreation (such as water ski areas, marinas, boat harbours, canals, anchorages), and near reefs and aquaculture fisheries resources (such as commercial oyster leases);
- Use onshore toilets when docked and encourage passengers to use onshore facilities before casting off;
- When boating for three or more hours, plan for onshore toilet stops where such facilities exist;
- Where available, use an onboard sewage management device such as a portable toilet, holding tank or sewage treatment system;
- Keep fats, solvents, oils, emulsifiers, paints, poisons, phosphates, disposable nappies, and sanitary napkins out of toilets;
- Use biodegradable and non-toxic products for cleaning and odour control; and,
- Encourage others to adopt a similar approach.

**An overhaul of TOMPA’s sewage provisions: TLAB 2002**

By contrast, the amendments made through the 2002 TLAB were more significant in the range and impact of the changes. The entire content of Part 7 of TOMPA was replaced with a new Part 7 _Prevention of Pollution by Sewage_. The new part included legislative amendments that established no discharge areas where sewage could not be legally discharged from vessels including marinas, boat harbours, rivers, estuaries, the Great Barrier Reef or in the vicinity of sensitive areas such as oyster beds. In a press release promoting the legislation, the Minister for Transport and Main Roads said “these no-discharge areas will assist in protecting the marine environment and encourage sensible use of
Queensland’s waterways” (Bredhauer 2001:2). It was reported that it was the Minister’s view that:

Under the new laws, areas can be declared in which no discharge is permitted, which will reduce the risk posed by vessel-sourced sewage to human health and the environment... The water quality enjoyed by boat owners, fishers and the local community will be better protected (Cooktown Local News 2002a:14).

The changes also legally permitted use of a wider range of on-board sewage treatment and holding systems including holding tanks, on-board sanitation devices and portable chemical toilets, provided that the potential sewage generating capacity of vessels was taken into consideration when considering the adequacy of its sewage holding devices. The Act also defined special requirements for commercial vessels and other vessels with large numbers of people on board (declared ships) which were considered to pose particular sewage pollution risk and developed a specific protection regime for such vessels.

In the Government’s opinion, a key strength of the new legislation was that, as a result of consultation with the Great Barrier Reef Marine Park Authority, the legislation was able to adopt a relatively uniform approach for vessel sewage management in Queensland’s coastal waters and the adjacent waters of the Great Barrier Reef Marine Park. This allowed for a consistent approach for sewage management in Queensland, regardless of jurisdictional boundaries. The department also believed that the amendments were “a significant improvement to the current legislation as it will aid in the protection of sensitive areas, reduce the volume of sewage entering coastal waters from vessels, and therefore provide the community and Government with greater confidence in the quality of coastal waters” (QT 2001a:1).

The new laws were approved in May 2002. Approximately two-thirds (nineteen) of the twenty-nine members who rose to address this omnibus bill—which covered a range of matters including passenger transport, marine safety, and rail and road transport, in addition to sewage—spoke to the issue of sewage discharges from ships. While their

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37 This is based on the vessel person capacity under the Transport Operations (Marine Safety) Act 1994 and its related Regulation.
comments were wide ranging, the sewage provisions of the Bill received bi-partisan support and all clauses were agreed to as read.

Although the supporting regulations had not yet been drafted or passed, the change to TOMPA brought about through the 2002 TLAB provided for the immediate banning of sewage discharges in marinas, boat harbours and canals following the passage and assent of the Bill. It was anticipated that other requirements would be progressively phased in following the planned regulatory changes.

Compared to the earlier periods, there was comparatively little media or public response to the passing of the new legislation. However, this changed following the commencement of its provisions and during the development of the regulation which implemented it.

The devil is in the detail: 2003 Regulatory Impact Statement

A Regulatory Impact Statement (RIS) and draft regulation were prepared in relation to proposed regulatory changes to support the implementation of amendments made to TOMPA by the 2002 TLAB. Maritime Safety Queensland, a newly formed agency under the Department of Transport, undertook consultation with stakeholders on the draft version of the regulation and mailed out 536 copies of the RIS documents to interested individuals and organisations for comment. The RIS and draft regulation were also made available on the MSQ website.

The RIS made clear that the government’s position in relation to vessel-sourced sewage:

\[
\text{Vessel-sourced sewage may not be the major source of marine pollution but it is an important contributor. With ever increasing boat registrations and levels of usage there is a compelling need and growing community expectation for the boating fraternity to share the responsibility for caring for and protection of Queensland’s coastal waters from vessel sewage pollution... The proposed regulation specifies requirements to be adopted to aid in}
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\[28\] In Queensland all significant changes to subordinate legislation, such as a regulation, require the preparation of a Regulatory Impact Statement (RIS) under the Statutory Instruments Act 1992. A RIS must be prepared for all subordinate legislation that is “likely to impose appreciable costs on the community or part of the community” (SI Act 1992 s43).
the minimisation of any environmental and human health impacts from vessel-sourced sewage (MSQ 2003:1).

The State was becoming increasingly firm and less ambiguous in their assertion of the potential contribution to human health risks, decreased visual amenity and reduction in water quality that sewage discharges from all sizes and types of vessels posed. The State Government’s stance on the regulation of sewage discharges from vessels seemed to have solidified and become less conciliatory in the face of ongoing boater dissent, with the RIS stating that “finalisation of the regulation provisions will enable the commencement of more stringent requirements to further minimise pollution from vessels” (MSQ 2003:4).

The RIS proposed that following a period of phased introduction the prohibition for all vessels of discharge of untreated sewage in prohibited discharge waters, smooth waters, and the waters of Hervey Bay and Northern Moreton Bay. Differential discharge provisions were provided for vessels with six or fewer persons onboard, seven to fourteen persons onboard, and vessels with fifteen or more persons on board for discharge into open waters, with vessels carrying fewer than six persons being permitted to discharge untreated sewage in these waters but vessels with between seven and fourteen people being prohibited from discharged untreated sewage within 1000m of a sensitive area or a shore. A sensitive area included aquaculture and fisheries resources, a reef, a person in the water, and highly protected areas of a marine park.

The proposed discharge provisions for treated sewage was more lenient with the discharge of treated sewage only being prohibited in prohibited discharge waters and within 1000m of a sensitive area within smooth waters, northern Moreton Bay waters, and Hervey Bay waters. To be classed as treated sewage it was proposed that the sewage must have not more than 75 faecal coliforms per 100 millilitres. However, it was

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29 The RIS defined prohibited discharge waters as the waters of boat harbours, canals, marinas, and highly protected areas of a marine park. Smooth waters means the designated smooth water limits of Queensland coastal waters defined under the Transport Operations (Marine Safety) Regulation 1998 (including the waters of rivers, creeks, streams and lakes, and the waters within breakwaters or revetments). Under TOMPA’s sewage provisions, smooth waters do not include those waters within partially smooth waters that are within ½ nautical mile (nm) from land or prohibited discharge waters.
envisaged that as treatment technology improved, other requirements for sewage quality characteristics could apply.

**Responses to the RIS**

Of the 166 written submissions received on the RIS, almost half (76) were from recreational boaters and recreational boating organisations who gave the draft regulation guarded support noting that “generally it doesn’t seem too bad. It is just the enforcement which could be a problem” (Wardill 2003:19). However, despite the Transport Minister’s claims that the regulation “was designed to be practical and easily understood” (Queensland Insight 2003:1) and “to encourage compliance” (Prosperine Guardian 2003:10) some boaters were “concerned many of the new rules will be difficult to interpret and hard to police” (Wardill 2003:19).

Local government leaders and environmentalists again “accused the State Government of not going far enough to protect sensitive waterways” (Wardill 2003:19) but agreed with boaters assessments that “the new rules are complex, difficult to understand and impossible to enforce” (Caboolture Shire Herald 2003a:3). Brisbane’s Lord Mayor Jim Soorely further alleged that the new rules “entrench the idea that you can still dump in the bay as long as you don’t get caught doing it in ‘sensitive areas’” (Caboolture Shire Herald 2003a:3). A number of mayors contended that it was “disgusting…[that] the state government allowed boat owners to discharge sewage into the bay” (Redcliffe & Bayside Herald 2003:4) and “absolutely disgusting that councils spend millions of dollars on sewerage treatment plants and other water quality measures while the State Government allows boat owners to discharge their sewage directing into Moreton Bay” (Caboolture Shire Herald 2003b:1).

The mayors warned that:

> If the proposed State Government law were enacted, it would actually allow an increase in the amount of sewage discharged with an ever increasing number of small boats using the Bay, particularly for recreation (Island & Mainland News 2003:43).

These concerns were based on a reading of the regulation that it would allow most boats carrying six or fewer people to be able to discharge raw sewage into the open waters of Moreton Bay (Caboolture News 2003:9) and would consequently allow “most vessels to discharge raw sewage directly into 98% of the bay” (Bribie Weekly 2003:5). To prevent this from
happening, the use of holding tanks that were pumped ashore was favoured by elected council officials and environmentalists over macerators which they believed simply “soak[ed] the waste to disguise its appearance before discharge” (Caboolture Shire Herald 2003a:3). The Redlands Mayor called on the State Government to go even further than the original 1995 legislative position and to make it illegal for all boats longer than eight metres to dump untreated sewage in Moreton Bay (Finnila 2003:7).

Regulatory amendments to support changes to TOMPA’s sewage provisions

The regulatory amendments were submitted to Cabinet in late 2003. The revised Transport (Operations Marine) Pollution Regulation 1995 defined nil discharge waters for untreated and treated sewage including marinas, canals, boat harbours and highly protected areas (marine parks) and restricted discharge areas including smooth waters, the waters of Hervey and Moreton Bays, and buffer areas to important features including persons in the water, aquaculture resources, reefs, the mean low water mark of an island or the mainland and highly protected areas (with the exception of the Great Barrier Reef Marine Park which is governed by its own sewage discharge regulations that are complementary to those in TOMPA). The Regulation also contained a schedule which provided detail on the three grades of treated sewage and their quality characteristics.

A phased approach to implementing TOMPA’s remade sewage provisions

TOMPA’s new sewage provisions were introduced through a phased approach. The new rules governing sewage discharge in marinas, boat harbours, canals and boat ramps came into effect immediately. Further requirements were scheduled to commence on 1 January 2004, 1 July 2004 and 1 January 2010.

In late 2003 information regarding the new regulations and the phased approach to implementing TOMPA’s new sewage provisions was made available in the form of fact sheets, flyers, posters, pamphlets, and maps depicting restricted areas. These were distributed through mail-outs to all registered recreational and commercial vessels and from the MSQ website. The new legislation was also promoted through the agency’s magazine Seascape and through Ministerial media releases. This campaign included posters, brochures, facts sheets and drink coasters featuring the confrontational image of
a boat floating in a toilet bowl and featuring the tagline “What kind of waterways do we want?”, which highlighted the potential impacts of sewage discharges from vessels and provided details of the new sewage provisions outlined in the Act and Regulation. This message was further reinforced in some promotional materials, such as posters, by the inclusion of the unambiguous message “Don’t dump. Sewage does damage.” on some materials (image 5.6).

Image 5.6: What kind of waterways do we want?, poster, circa 2003
© State Government of Queensland, used with permission

text reads: From January 1 2004, dumping sewage in prohibited discharge waters is illegal.
For more information call 3224 8450 or visit www.msq.qld.gov.au
Don’t dump. Sewage does damage.
There was general support for the concept of a phased approach with the QSCC noting “if the state government had not agreed to phase these proposed change in over a number of years, it would have discriminated against most small boat owners” (Hunt 2003a:5). However, despite the legislation being passed in 2004, some still believed that the timeframes for the phasing in were insufficient for recreational boaters to comply and called for certain vessels to be made exempt from all but the most minor discharge restrictions. For example, an editorial in the recreational boating lifestyle magazine Go Boating suggested that:

\[ A \text{ two year moratorium should be placed on the 1 July date for tougher components of the legislation. At that time, all boats under 8 metres (basically day boats) should be exempted from the legislation and boats over that length given two (2) years to fit appropriate sewage treatment plants… the government should offer a subsidy to all owners of boats over 8 metres to assist in the fitment of treatment plants (Scott 2004a:1).}\]

**Phase 1: Choose your infrastructure**

The first phase commenced on 1 January 2004 and required boaters to begin to implement sewage management measures of choice—including the use of a portable toilet, holding tank, treatment system, or the use of onshore amenities for shorter trips. The discharge of sewage from boats was banned in enclosed waters or those with limited flushing including marinas, boat harbours, canals, the Noosa River and designated areas of marine parks. The legislation required boaters intending to take their vessel into these prohibited discharge waters to consider and implement measures to manage their sewage discharges. The changes at this time had a limited impact on smaller boats undertaking day trips as sewage was unlikely to be generated or discharged (as on a tinnie or other vessel without a toilet). However, more strict onboard sewage management measures were required for vessels with a fitted toilet that were likely to carry larger numbers of passengers, take overnight journeys or travel near areas sensitive to sewage discharge. The legislation also required that all sewage must first pass through a macerator which would shred the solid sewage wastes into fine slurry before discharge.

Many believed that “the new laws would cut the amount of sewage being pumped into sensitive areas such as Moreton Bay” (Wardill 2004:7) and the State Member for Kawana (Cummins 2004:8) promoted the new phase of the implementation of the marine sewage legislation stating that:
Caloundra residents will be very pleased to know the Government’s push to improve the quality of our waterways is entering another phase. All boaties should be aware that laws targeting vessel sourced sewage are now in force to minimise any impact from sewage generated onboard vessels...I have fought long and hard to improve the water quality in the Mooloolah River and I worked to ensure that the pumping of millions of litres of sewage into it was discontinued. These new laws provide greater protection for Queensland’s waterways and its users from the effects of vessel sewage.

However, this view was not shared by some recreational boat owners who were reported in the press as having reservations about the legislation and its application to recreational vessels.

“They’ve gone overboard with this legislation,” a Rockhampton boat owner said yesterday following the recent announcement that boaties will face heavy fines if they flush untreated sewage into rivers...Boat owner and member of the Fitzroy Motor Boat Club, John Joyce said that he could understand what the legislation was trying to achieve but didn’t think it was necessary and would inconvenience many. (Morning Bulletin 2004:6)

The new laws are unreasonable, unworkable, unenforceable and quite frankly some components are an affront to any sensible approach to public policy. At the outset let me say I don’t like swimming in anchorages where people are ejecting effluent from their boats, no one does, but the answer to the problem is not this weird legislation that the Queensland Government has trotted out (Crawford 2004:1).

Workshops to promote the new sewage regulations were held at a number of locations across the State in 2004 including Airlie Beach, Hamilton Island, Moreton Bay, Bribie Island, Cairns, Hervey Bay, Gladstone and Maryborough. The Minister for Transport & Main Roads (Lucas 2004:1) promoted the workshops as:

...a chance for boaties to ask questions about what’s required under the legislation, and an opportunity for the State Government to help ensure vessel owners and operators are shown how they can meet the requirements...The meetings were designed to show that the legislation provides flexibility through a range of options which will help owners and operators comply with the regulations.

The workshops provided a one-on-one opportunity for boat owners to work with a government officer to identify the most appropriate options available to comply with the legislation based on their vessel and the way they used it. A representative for the Minister for Transport noted that “many people attending the sessions were delighted to discover they were
already complying with the new regulations” (Fraser Coast Chronicle 2004:7). However, despite these assurances, a general sense of dissatisfaction among many recreational boaters continued into the commencement of the second phase of restrictions with some disappointed that the attitude of those running the sessions regarding “the legislation and its enforcement was without compromise” (Fraser Coast Chronicle 2004:7). Despite the years of consultation, these recreational boaters appeared to confuse what was essentially an information process with the consultative process that had preceded it.

**Phase 2: Tightening the restrictions**
The second phase, which commenced on 1 July 2004, introduced tighter restrictions to the discharge of untreated sewage from vessels. From this date, boaters were only able to discharge sewage into rivers, creeks and designated smooth waters if it had been treated by an onboard sewage treatment device. Discharge restrictions were also applied to discharges around sensitive areas such as reefs, aquaculture fisheries resources and land. Upon commencement of the tougher restrictions it was reported that “the new Queensland Government legislation is causing a stink at marinas and boat harbours across the sunshine state” (Redcliffe Bayside Herald 2004:6).

**Phase 3: The final phase**
The final phase of Queensland’s new ship-sourced sewage requirements was due to come into effect on 1 January 2010. During this phase, in addition to the sewage discharge requirements already in place after this date any ship carrying sixteen or more persons onboard could no longer discharge untreated sewage into Queensland coastal waters, and any ship carrying between seven and fifteen persons onboard could no longer discharge untreated sewage within 1 nautical mile of a reef, or the mean low water mark of an island or the mainland (MSQ 2009a). However, even before the final phase had even commenced a new TLAB was introduced which tightened the sewage provisions for all vessels.
Recreational boaters can’t be trusted: TLAB 2008

Despite the significant changes to the legislation from a prescriptive set of regulations to a more performance-based approach and a compliance reprieve of five years for existing vessels and seven years for new vessels, it appeared that many recreational boaters had no intention of changing their sewage management practices. In 2008, before the final phase had even commenced, another TLAB\(^\text{30}\) was introduced by the state which reintroduced a clause into TOMPA that seemed to hark back to the original legislation, albeit without the arbitrary length requirements. The new section (48A), proposed in the 2008 TLAB and passed by parliament that same year, required that any vessel with a fixed toilet permanently onboard the vessel that operated in prescribed nil discharge waters must be able to hold or treat its sewage to the appropriate level for discharge in that area (Queensland Parliament 2008a:23). This new clause applied to all non-declared ships with a fixed toilet. These were primarily recreational and some smaller commercial ships. The changes brought in under this TLAB required that all ships with a fixed toilet onboard had to be “configured” to meet discharge requirements no matter where they operate. Effectively this meant that any vessels with a toilet operating in nil discharge waters—where no discharge is allowed—would have to be fitted with a holding tank or have a valve fitted to ensure the toilet either could not operate or could not discharge in these waters. However, it should also be noted that this requirement has the underlying clause that “unless the owner or master complies with the requirements prescribed under a regulation in relation to the holding or treating of sewage on the ship”, and to date no such requirement exists in the Regulation (TOMPA s48A).

The Minister for Transport (Mickel 2008:839) argued that the new clause “continues the strong work of this government in protecting our marine environment” and would:

\[
\text{...clarify how the owners of specified ships manage sewage to prevent its deliberate or negligent discharge. Ship owners must ensure they have the equipment to keep sewage onboard to prevent any chance of a discharge into waters where it could have severe consequences, such as in oyster leases...every effort should be made to keep our waters clean.}
\]

\(^{30}\) A TLAB was also introduced in 2005 which placed additional requirements on the management of sewage from larger vessel.
However, during the Hansard debate it was also suggested that these new provisions “clearly reinforced that responsibility for protecting the marine environment rests with all ship owners and demonstrates this government’s commitment to protecting our valuable marine environment” (English 2008:1650). This idea was taken further by the Minister, who justified the new clauses on the grounds that given “the growth in shipping and the importance of our fragile marine environment it is essential that Queensland take a strong stance on the discharge of sewage” (Townsville Sun 2008:37).

Despite the stated desire to provide clarity for boaters to ensure that they could meet their environmental responsibilities with respect to sewage discharges, it was also suggested in the Explanatory Notes to the Bill that justification for the inclusion of the new clause was also on the grounds that:

Maritime Safety Queensland is aware that many vessel operators put a portable toilet on board to give the impression that they are complying with the existing legislative provisions, but continue to use the fixed onboard toilet. They continue to unlawfully discharge sewage into nil discharge and prohibited waters. As a result many vessel operators are not complying with the intent of the legislation. This situation particularly applies to ships in marinas and smooth waters used for living aboard. Enforcement of the provisions is not possible unless persons are actually caught in the act of discharging and this is impractical. (Queensland Parliament 2008b: 33)

While this statement was unambiguous in its allegations that many recreational boaters were deliberately continuing to discharge illegally, it also recognises the impracticality of enforcing the legislation without the support of the boating community.

Only four of the twenty-four members who rose to speak to the Bill spoke to the issue of vessel-sourced sewage. Those that spoke were generally supportive of the new provisions, for example:

These modifications to current Queensland legislation can only serve to benefit the people of Cleveland by protecting our beloved bay and Stradbroke Island from the contaminants associated with ship discarded sewage (Weightman 2008:1650).

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31 This is not surprising given that the Bill also dealt with more controversial issues associated with fatigue management for truck drivers and issues related to the resumption of land by government for public transport purposes such as the construction of bus ways.
However, the ability and will of the government to enforce both the new and the existing vessel-sourced sewage laws them was again questioned, as it had been in previous TLAB debates with the Opposition Spokesperson for Transport noting: “It is alright having the laws, but we need enforcement activities to make sure that they are carried out and followed” (Nicholls 2008:1629).

Promoting the changes, the Minister for Transport noted that the legislative amendments would allow the government “to take firmer action against boat owners who pollute waterways” and make “offenders who discharge pollution more accountable for the damage they cause” (Townsville Sun 2008:37). While many of these statements were made in relation to oil spill pollution, particularly following a significant spill in Gladstone Harbour in January 2006 from the bulk carrier The Global Peace, the Minister also noted that “it is essential that Queensland take a strong stance on the discharge of sewage” and announced that the amendments to TOMPA arising from the passage of the Bill would also:

...enable Maritime Safety Queensland to proceed with future regulations regarding the storage of untreated sewage. Those regulations will require vessels with fixed toilets operating in –nil-discharge areas for untreated sewage to have appropriate equipment onboard—for example, a sewage-holding tank or treatment system. (Townsville Sun 2008:37).

More regulatory changes

The Transport Operations Marine Pollution Regulation was entirely remade in 2008. Under Queensland statutory law (specifically the Statutory Instruments Act 1992, Part 7 S54) all subordinate legislation needs to be remade every ten years due to the staged automatic expiry of subordinate legislation on 1 September following the tenth anniversary of the day of the making of the regulation. The TOMP Regulation was remade in line with this expiration. Maritime Safety Queensland sought an extension to allow time for a RIS process to be undertaken to support the redrafting of the regulation. A RIS was released in 2007 which covered the contents of the entire regulation, and all marine pollutants not just the sewage provisions.
Some parts of the Regulation did not change as they were deemed “to be effective, efficient and providing the best possible outcomes for the government, the maritime industry, boating community and the marine environment” (MSQ 2008a:7). However, with respect to its sewage provisions it was believed that while the legislation gave ship owners and operators a number of choices in how they achieved compliance these options also “established loopholes and allowed ships to avoid complying with the intent of the Regulation” (MSQ 2008a:8).

The RIS (MSQ 2008a:8) noted that:

*Ships generally have purchased the right equipment but Maritime Safety Queensland has found that a number of ships do not have the equipment in the appropriate working order. As a result, we are aware of people who still discharge through their fixed toilet in contravention of the legislation, but to take action Maritime Safety Queensland has to catch them discharging before an offence is committed. Many people continue to have fixed toilets but have not changed the configuration to meet the requirements under the legislation. Also many people have purchased a portable toilet, but anecdotal evidence shows that some of them do not use the portable toilet and continue to use the fixed toilet and unlawfully discharge through the fixed toilet.*

While many parts of the regulation relating to sewage remained relatively unchanged a number of additional requirements were included. These included a new requirement that all ships with a fixed toilet must have a macerator fitted with cannot be by-passed; vessels fitted with sewage treatment systems must maintain and assess the sewage treatment systems at regular intervals and carry system documentation and service manuals on board at all times which provide details of system servicing; and a new requirement for all ships with a fixed toilet onboard not to discharge untreated sewage within half a nautical mile of a wharf or jetty when in open waters.

Many of these provisions, such as those relating to the need to keep sewage treatment system documentation on board, were previously applicable only to declared ships, but were expanded through these amendments to include all ships with such systems.

The *Transport Operations (Marine Pollution) Regulation 2008* commenced 1 September 2008. In promoting these changes, Maritime Safety Queensland suggests that “many owners and operators of recreational boat have found the legislation does not greatly affect their vessel and in many
cases, that compliance is relatively straightforward and inexpensive” (MSQ 2008a:8). “Sewage information and networking sessions” were conducted by government officers in regional boating centres in South East Queensland (Gold Coast, Manly) and along the coast of the Great Barrier Reef (Airlie Beach, Bundaberg, Cairns, Gladstone, Hervey Bay, Mackay, Port Douglas, Townsville) to provide information on the new regulatory changes (MSQ 2009b).

Further minor regulatory changes were made in 2010 to provide absolute clarity that large overseas ships cannot discharge untreated sewage anywhere in Queensland’s coastal waters and that no vessel can legally discharge any sewage in prohibited waters in Queensland. These amendments were proposed to address any stakeholder confusion regarding which vessels must comply with specific sewage provisions (Queensland Parliament 2010a:78). The amendments in this TLAB also provided for the designation of parts of the State Great Barrier Reef Coast Marine Park (not to be confused with the adjacent Commonwealth Great Barrier Reef Marine Park) which require a higher level of protection from ship-sourced sewage. Although the state had always explicit in its intention to provide for specific local provisions that could be applied in areas of high environmental value, as many recreational boaters had feared might occur, this change had the power to extend the areas of nil and limited sewage discharge under the TOMPA. The Explanatory Notes to the Bill explained that the Queensland Department of Environment and Resource Management, not the Transport Department or its Maritime Safety agency Maritime Safety Queensland [MSQ], would be responsible for determining which parts of this marine park required additional protection suggested that the inclusion of this information in the Act “provides a balanced approach between areas where controlled discharges of sewage can occur and nil discharge areas for highly sensitive areas within the marine park” (Queensland Parliament 2010a:31). To date no additional discharge restrictions have been imposed.
Making the laws work

A large part of policy making is matching policy instruments to the problem at hand to achieve the desired policy outcomes (Fenna 1998:7). However, a quandary for policy makers is to determine the degree of regulation that achieves desired policy outcomes and which is also acceptable to (in this case) the boating community because, as a group, they “are resistant to change, wary of petty incremental regulation and hard to police” (Buky 2008:8).

Following the initial amendments to TOMPA in 2002-2003, Maritime Safety Queensland applied a range of regulatory strategies to regulate sewage discharges from recreational vessels and to achieve compliance, collaboration and better practice. Because of the importance of attitudinal change in delivering behaviour-change policy objectives, MSQ’s ship-sourced sewage compliance model relied upon a mix of policy instruments and compliance measures to ensure the implementation of TOMPA’s sewage provisions (J Kavanagh 2005:96). These measures included a combination of education, compliance assistance and enforcement action based on the principle that responsive regulation uses the most effective and appropriate mix of measures to achieve compliance (AMSA & SSRCA 2009:3).

During the Parliamentary debates it was suggested that with regard to “education, monitoring and enforcement of non-discharge regulations in enclosed and inshore waters…enforcement must be ruthless” (Laming 2000:572). However, regulations concerning boat sewage discharges can be considerably more difficult to enforce than such a stance might suggest (Ross 1985:7). As foreshadowed by many of the boaters providing submissions on the legislation, enforcement efforts have not been unproblematic. Despite that fact that some parts of the legislation commenced immediately upon promulgation of the Act in 2002, by the end of 2009 there had been only one prosecution for sewage pollution under TOMPA. This is not surprising given Tan’s (2006) observation regarding international standards non-enforcement and non-compliance with sewage disposal and the non-proclamation of the equivalent Federal laws for such an extended period.
The Queensland Government has been particularly active in the enforcement of TOMPA’s oil provisions. However, as noted by many recreational boaters, the collection of evidence for prosecution of sewage related offences can be difficult and enforcement presents numerous challenges:

So how are they going to enforce this? (And remember a law that can’t be enforced is a bad law). Well I’m not sure really, even with the breathtaking powers that an authorised officer has, how are you going to prove that a particular piece of sewage comes from a particular boat? I have visions of DNA tests on the sewage and the persons on board (Crawford 2004:1).

Some believed that while enforcement attempts might be made they were likely to be futile in the face of a recreational boating community unprepared to comply arguing that “it appears that the best thing one can do is to treat QT like one does whining dogs and whingeing children—ignore them and they will hopefully go away” (Buky 2001:1).

Enforcement activities are primarily conducted by officers authorised under TOMPA from MSQ or their enforcement partners the Queensland Boating and Fisheries Patrol (QBFP) and Queensland Water Police (Kavanagh 2005:97). Recreational boats can be subject to random inspections by any of these agencies to check compliance with a range of issues including registration, insurance, licensing, safety equipment, on-board sewage management systems and breath-testing for alcohol (Lucas 2006a). In promoting this

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32 Between 1997 and 2006 there were 27 successful prosecutions for oil spill offences mounted by MSQ under the TOMP Regulation 1995 and convictions and penalties up to $100,000 were imposed for discharge offences by way of summary proceedings (RIS 2006).

33 Refer TOMPA s72 for details on the appointment of authorised officers and TOMPR s80 for details on who can be appointed as authorised officers.

34 Essentially the external enforcement partners deliver on-water enforcement for what are considered to be relatively straightforward safety and pollution offenses such as registration, exceeding speed, limits, licensing, and the carriage of safety equipment. Safety offences are generally dealt with by the by issue of a marine infringement notice [MIN] issued under the State Penalties Enforcement Act 1999 and its associated regulation. A MIN could be considered to be akin to the issue of a speeding ticket in a vehicle. MINs can either be paid or may be contested in the Queensland Magistrates’ Court (J Kavanagh 2005:97). These kinds of penalty infringement notices generally impose strict liability and are applied to deal with one-off breaches that can be easily remedied (Abbott 2005:167). While MINs are not currently able to be issued for pollution offences MSQ is in the process of seeking permission to apply MINs to certain breaches of TOMPA. Due to the level of penalty for discharge offenses under TOMPA these are indictable but can be taken by way of a summary proceeding at the election of the prosecution (J Kavanagh 2005:100). As a result any MINs issued under TOMPA likely to be restricted to administrative breaches.
compliance regime the Minister for Transport and Main Roads (Lucas 2006b:1) announced that:

*I make no apology for taking tough action. We’re not out to ruin anyone’s fun, we just want our waterways to be safe for everyone. Maritime Safety Queensland has an excellent program to make sure owners of recreational vessels stand by their safety obligations, and comply with the relevant safety requirements. And this year we’ve brought in tough new changes to help clean up and protect Queensland’s pristine marine and coastal environment.*

However, this shared enforcement responsibility has brought with it its own complicating factors because each agency has its own distinctive cultural identities, allegiances, forms of regulatory practice and regulatory priorities. Furthermore, MSQ’s enforcement personnel were traditionally primarily responsible for regulating maritime safety matters rather than issues relating to marine pollution and many were resistant to this change in responsibilities, particularly with respect to recreational vessels.

The officers responsible for enforcing TOMPA’s sewage provisions can be considered “street level bureaucrats…who interact with and have wide discretion over the dispensation of benefits or the allocation of public sanctions” (Lipsky 2010:xii). As such they can have a significant role in policy implementation and can “influence the practical working out of a policy which may be significantly different from that originally intended by a policy maker” (Sutton 1999:8). This is because their work embodies an essential paradox: highly scripted work to achieve policy objectives juxtaposed against considerable improvisation and responsiveness to each individual case. Lipsky argues that “the decisions of street-level bureaucrats, the routines they establish and the devices they invent to cope with uncertainties and work pressures, effectively become the public policies they carry out” (Lipsky 2010:xiii, emphasis in original). The very process of attempting to implement a policy can change it. However, it should be noted that these changes can result purely from administrative factors, such as inadequate resources, rather than any overt political motivation or resistance to the policy from the officers implementing it (Sutton 1999:23). Like other street-level bureaucrats who translate and deliver wider standards set by others (such as teachers or police officers), what

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35 From late 2011 the QBFP will become part of MSQ through a government agency restructuring process.
enforcement officers do and assert effectively becomes agency policy, and the nature and extent of environmental protection is formed by this process (Fineman 1998:970).

Traditionally, Australian environmental regulators have tended to adopt a primarily compliance-based approach to enforcement which relies heavily on the development of cooperative relationships and education. Criminal prosecution is generally reserved as a last resort for serious offenses (Abbott 2005:164). Due to the difficulties inherent in evidence collection, sewage enforcement and prosecution efforts have tended to focus on infrastructure and administrative issues.  

The first prosecution under TOMPA’s new sewage provisions occurred in 2005 and involved a Whitsunday charter vessel, *Krackerjack*, which was found to be in breach of TOMPA because it did not have a connected sewage holding device or a sewage management plan (AMSA 2007). An enterprising enforcement officer, noting that the plumbing “did not look right”, checked it by flushing the contents of a tin of baked beans through the toilet system to test its compliance. MSQ reports that the baked beans “duly appeared floating in the water without being macerated, proving the vessel’s sewage system did not include a holding tank as required under the state’s pollution laws” (MSQ 2006:6). Under the TOMP Regulation a sewage management plan must articulate the way shipboard sewage will be managed to prevent the unlawful discharge of sewage from the ship, including a record of the equipment fitted to hold or treat sewage and the operating and maintenance instructions for this equipment. Declared ships are required to maintain a current sewage disposal record book which records the date, time place and volume, in litres, of each discharge made. A conviction was recorded against the master and $3000 fine applied for failure to comply with the legislation. MSQ’s prosecutory success was promoted through its boating publication *Seascape* in a story titled *Beans Means Convictions* (MSQ 2006a), complete with an orange wave of baked beans in the header to the story.

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36 The focus on infrastructure in compliance activities became overt when formal audits for compliance with the sewage requirements of the act and regulation were introduced in 2009. These audits initially targeted declared ships (i.e. commercially registered ships and passenger carrying ships with a fixed toilet such as ferries and tourist vessels) which are subject to more stringent discharge restrictions and operational requirements under TOMPA (MSQ 2009c:8).

37 Date of prosecution 14 August 2006 through the Proserpine Magistrates Court, official case number 10626QD.
As at mid-2011 there had only been three prosecutions under TOMPA’s sewage provisions\(^{38}\); there have been no prosecutions of recreational boaters.

While education or economic incentives might contribute to the control of marine pollution, these are likely only to be effective as a result of the perceived reality of the existence and highly probable potential threat of regulation and its enforcement (Johnson 1989:512). However, it is a reciprocal relationship. Laws alone are unlikely to result in changed discharge behaviours; the law will only influence those who are informed of its content and who do not know that the law is not enforced, or those who have a developed sense of social conscience (Strand & Gibson 1990). Enforcement approaches tend to rely on inspections to ensure that vessels are properly equipped (as required by law) and that the installed systems function properly (Brown 2001).

However, manpower limits (Irons 1986), the underfunding of regulatory agencies (Smith & Anderson 2003) to inspect vessels to ensure their compliance with sewage discharge laws unless a complaint is received, competing enforcement priorities, and difficulties associated with monitoring overboard discharge (Strand & Gibson 1990) have prevented rigorous enforcement of discharge laws and resulted in many vessels equipped with holding tanks either illegally dumping directly into waterways or discharging effluent that does not meet the prescribed standards.

Although regulatory authorities may be aware of such illegal discharges, in many cases it can be difficult for enforcement agencies to justify compliance actions where the costs of an investigation can be high, especially for offences which attract low penalties (Aston 2008:238). The generally high standards and types of evidence required to satisfy a prosecution can also create problems for enforcement authorities because, in addition to establishing that a pollutant originated from a particular ship, the state’s prosecution would also need to show that a particular crew member or the ship’s owner was responsible for the discharge and that they were deliberate, reckless or negligent in

\(^{38}\) A second prosecution occurred in 2009 when a fishing boat skipper was fined $1000 for discharging sewage directly into the Coral Sea. When a Boating and Fisheries Patrol inspector boarded the vessel for a routine inspection they noted that a ball valve had been fitted to the vessel’s sewage system which prevented the sewage going through the macerator; instead the sewage was discharged overboard directly from the toilet (Bowen Independent 2011:7). The details of the third prosecution were unavailable at the time of finalisation of this thesis.
causing the discharge (Aston 2008:238). Operational regulatory approaches can be particularly difficult to enforce because the collection of evidence is difficult and their implementation relies almost exclusively on the goodwill and compliant behaviour of individual boaters. In general there is a low risk of prosecution, punishment and detection due to a lack of “capable guardians” and the vastness of marine areas (Smith & Anderson 2004). As a result, Brown (2001) believes that a positive approach toward encouraging pump-out use and other compliant behaviours, based on education, is more likely to be successful in reducing sewage discharges than compliance programs based on pursuing violators and enforcement.

The contentious question of where or what to do with your waste sewage continues to rear its ugly head, and it is getting a whole lot more serious of late as the local authorities begin flexing their muscles and enforcing sewage management legislation that was in fact invoked as far back as January of 2004 (Tyler 2009:23).

This is despite MSQ’s focus on sewage compliance based on education and the provision of information (MSQ 2009c). From late 2009, declared ships (commercially registered passenger carrying ship with a fixed toilet such as ferries and tourist vessels) were subjected to audits for compliance with the sewage requirements of the Act and regulation. This audit process involved officers inspecting a vessel and issuing a non-compliance notice if the vessel was found to be non-compliant with their sewage management obligations. Officers would return to re-inspect the vessel after to confirm that the necessary rectification measures had been undertaken. If these measures had not been undertaken MSQ could elect to prosecute the owners and masters of such vessels. Even with this increased compliance focus, as at mid-2011 there had only been three prosecutions of declared vessels under the TOMPA’s sewage provisions.

MSQ intends to roll out similar audits for non-declared (recreational) vessels in the future. These audits would see recreational vessels fitted with a toilet inspected to ensure that the toilet is fitted with a macerator and that macerator is unable to be by-passed. However, as at mid-2011, enforcement officers still did not have the ability to issue on the spot fines (known as Marine Infringement Notices or MINs) for non-compliance of non-declared or recreational vessels with the legislation. To date, it appears as though no recreational boaters have been fined or prosecuted for breaches of the Act’s sewage
provisions despite a widespread acknowledgement that boaters are not complying with the laws. Consequently, MSQ relies on education and information programs to change the discharge behaviours of recreational boaters, rather than an enforcement-only approach.

**Charting the changes**

As occurred on land, the approaches to managing ship-sourced sewage, regardless of jurisdiction, have tended to focus on sewerage infrastructure solutions with changes in behaviour and disposal practices tied to the use of these. Regardless of ship size and jurisdiction, there seems to be an almost deliberate effort by policy makers to avoid the attitudes and emotions associated with sewage disposal practices as if these do not matter, or are simply secondary considerations that can be changed with appropriate information, education and coercion. This has been despite the recognition that the regulation of ship-sourced sewage has been a contentious enterprise wherever introduced. Just as occurred on land, there is limited agreement regarding the potential and actual ecological and public health impacts of sewage discharges from vessels, particularly recreational vessels, with some believing that assessing their impact “remains a matter for impressions rather than scientific fact” (Finlay & Warner 2005:163).

Within the Queensland context, the use of Acts, such as TOMPA, is reserved for dealing with matters of importance for the implementation of policy (DPC 2009:2.4). Matters of detail and matters likely to experience frequent changes, such as fees, are generally contained in subordinate legislation such as the regulation under TOMPA. For an Act or a part of an Act to experience so many significant changes to both its overarching Act and its regulation in such a relatively short period of time is unorthodox and uncommon in Queensland. This is also unusual given the significant stakeholder and industry consultation that occurred throughout the legislative development and amendment process.

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39 Refer Appendix 6 for an outline of Queensland Legislative process.
These changes saw the regulatory approach move from a very prescriptive and infrastructure-focused set of legislative provisions toward a complex performance-based approach, founded on the sewage generating capacity of a vessel based on the number of people on board. The original regulatory approach based its infrastructure requirements for the mandatory installation of a sewage holding tank on the length of a vessel but lacked the regulation required to implement the no discharge provisions. This approach was replaced with one that allowed for the use of a greater range of sewage management devices including the use of onboard sewage treatment systems and non-fixed devices such as portable toilets. This new approach based its discharge provisions on the quality, or characteristics, of the effluent produced and the volume likely to be produced.

The main barriers to compliance with the marine sewage laws, in any of the various forms that they took, were “cultural” and “about getting the right attitude amongst the people” (Sweeney 2010:9), not getting the legislation right. This was certainly evident in issues associated with enforcement and the unwillingness of boaters to manage their sewage discharges in accordance with the new laws saw a return to the mandatory installation of holding devices, such as holding tanks, on all vessels with a fixed toilet operating in certain prohibited discharge areas (which it could be argued all vessels must operate within at one time or another, thus designation of these areas had actually increased the number of vessels that would be required to install a holding tank than had the original regulatory approach).

The regulation and enforcement approaches tended to be based on either infrastructure-focused approaches centred on the provision of land-based or the mandated installation of vessel-based sewerage infrastructure, or practical behaviour-focused approaches centred on controlling the location and timing of sewage discharges. These regulatory understandings of sewage discharges tended to inadequately attend to the emotional or attitudinal elements of such approaches, or to give adequate weight to the potential influence of social norms based on them to polluting activities (Haab & McConnell 2002). By contrast, symbolic understandings of excrement appeared to be integral to recreational boater responses to the proposals to regulate their sewage discharge
activities. These understandings relied heavily on rhetorical effect in defence of continued unregulated sewage discharge practices.

**Conclusion**

This chapter commenced by providing a context for the regulation of marine pollution as it relates to vessel-sourced pollution. This was supported by an overview of the most common regulatory approaches adopted in Australian jurisdictions to manage sewage discharges from vessels. I then outlined the legislative review and amendment process that occurred to regulate the discharge of sewage from vessels in the Queensland context, with a particular focus on the provisions for recreational vessels. This discussion highlighted the high degree of dissent and conflict that accompanied the development and introduction of the regulations for the discharge of sewage from recreational vessels. Additionally it found that despite considerable consultative efforts and an uncharacteristically large number of amendments to refine the legislation, as at mid-2011 the regulation of sewage discharges from recreational vessels was complex and still appeared to continue to attract limited compliance from recreational boaters.

The next chapter considers recreational boater responses to this process in detail and considers the ways in which boater responses to this policy process in many ways mirrored the findings of other studies into the regulation of recreational boating activities to achieve environmental outcomes. It also considers the possible impact of the unspeakable on the policy process in terms of both participation and outcomes.
CHAPTER SIX

A focus on the boaters and their claims

Introduction

Chapter 5 demonstrated how recreational boaters were very resistant to Government attempts to regulate their sewage disposal practices. It is generally acknowledged that recreational boaters are suspicious and dismissive of attempts to regulate boating practices, particularly on environmental grounds. In this chapter I consider the extent to which resistance to the sewage provisions of the Transport Operations (Marine Pollution) Act [TOMPA] may have been based on a perceived intrusion into this recreational boating space and an upsetting of the recreational boating ideals of freedom and control; freedom from rules and responsibility and control of oneself. I commence this chapter by painting a picture of the typical Queensland boater to frame their rhetorical strategies in resisting the imposition of regulation. In this analysis I focus on the rhetorical strategies used to assert legitimacy, externalise responsibility and blame, and attempt to control the policy agenda and process. I conclude the chapter by presenting a comparison of the case study to contemporaneous accounts of recreational boater responses to attempts to introduce a range of regulations with an environmental basis, to identify the extent to which this policy process mirrors what happens in other recreational boating policy process. From this base I highlight the common features across the policy processes and begin to tease out elements of the case study that might be better understood through attention to the presence of the unspeakable, in particular by identifying where and how the presence of excrement as the policy focus may have made a difference in terms of the policy process, outcomes and participation. These unspeakable issues are further explored in Chapter 7.
Understanding the typical recreational boater

Although recreational boating relies on adherence to the nautical rules set down in abstract geographical knowledges such as charts, textual maritime orientations such as cruising guides, and social exchange based on a complex set of boating knowledges regarding how boats and boaters interact with one another, a common expectation recreational boaters is that few outside rules will be set on their boating. Due to the constantly changing nature of the marine environment, recreational boating is also heavily based on personal memory and creative actions which are often construed as “doing your own thing” (Laurier 1999:197), albeit within the confines of these broader boating rules and knowledge.

Akin to the pirate ship of yesteryear, today’s recreational vessel remains a patriarchal, misogynist, sexually segregated and differentiated space where the ship is “the habitat of man” in which “a whole nautical morality makes him at once the god, the master and the owner” (Barthes 1972:67). The pirate ideal that such a view of recreational boating embodies stresses the importance of “individual freedoms as opposed to servility” (Selman 2008:4) and, like the popular image of the pirate, recreational boat owners paint for themselves an image of being outside the law—simultaneously lawless and operating within their own ethical code; like a pirate what most defines a recreational boater is being in some way “against the law” (Selman 2008:3).

There has been a widespread romanticisation of seafaring in the popular imagination (Klein & Mackenthun 2004:3), particularly in the collective imagination of the recreational boating community, where the sea and boats are discursively constructed as a ludic or playful space (Stanley 2002:14); providing both free time and escape (Laurier 1999:197). As such recreational boaters often emphasise the importance of relaxation and freedom from responsibilities as being an important element of their boating experience. As a leisure pursuit recreational boating can be simultaneously conceptualised as freedom and control (Rojek 1985:152); freedom from responsibilities and control over oneself. Part of this myth of freedom is supported by the idea of the recreational boater as being free with a strong emotional driver for recreational boating being “freedom—to and from” (Jones 2009:8); freedom to explore, commune with
nature and freedom from the stress and pressures of work and of life and to “do what you like” (Jones 2009:8). Recreational boating offers the opportunity for the:

…fisherman or sportsman…to get away from his cares and worries ashore and do a little forgetting by himself or with a friend in the peaceful seclusion of quiet coves, streams, and bays (Choate 1957:110).

As such recreational boating is often promoted as “the last…frontier, where you can be who you want to be, do your own thing, and be left alone” (Mele 1993:72) where one can be free from the responsibilities of family, wife and work and most importantly from the law. Consequently adherence to rules and regulations is generally a low priority (Jones 2009:9). This lack of willingness to adhere to rules is related to the boaters’ fantasies of control where recreational boaters exercise choice and control in their travel seeking “to be in control of their own life, to make their own choices, and have the freedom to do what they want when they want” (Jennings 2007b:34-35). However, another aspect of the pirate-like nature of recreational boating is that boaters often believe themselves to be “misunderstood by society for their propensity to enjoy themselves” (Selman 2008:3) and that this makes them a target for regulation.

**Ungovernable space: the recreational boat as heterotopia**

Part of the attraction of being on a boat out on the ocean is that it is perceived as a place that is the Other to work, domestic routines and everyday life (MacNaughten & Urry 2000:7). This idea of escapism and freedom is supported by the celebration of the wild and uncontrollable quality of the sea. This mythical view of the sea provides “romantic possibilities of escape, danger, and untamed nature” (Steinberg 1999:418) and “unruly or romantic anti-civilization” (Klein & Mackenthun 2004:2). The construction of ocean-space is in some senses the antithesis of land-space as it has largely been constructed as an untameable space that resists filling, development or control and this “perceived (and constructed) placelessness of the sea allows for the ship, fundamentally unrooted in a space of society, to be constructed as a hedonistic haven” (Steinberg 2001:164).

The boat, according to Foucault (1986:27) “is a floating piece of space, a place without a place that exists by itself, that is closed in on itself and at the same time is given over to the infinity of the sea”. Part of the appeal of boating can therefore be understood to be
similar to that of the Dickensian castle described by Michelle Allen (2002:393) in “its disconnection [and] its independence from the engulfing public sphere”. This disconnection and freedom is projected as a “Wild West mentality” (Mele 1993:63) that is reflected in the boat owners’ rejection of attempts to regulate their boating as an unnecessary intrusion into the individual private sphere and an unwarranted reordering of their social and leisure space. One of the key contributors to this sense of molestation by the state is that, once on the water, boaters perceive themselves to be beyond the public gaze and outside the ambit of official surveillance. Boaters behave like they ‘own’ the ocean and are free to do as they please on it because activities like sailing seem to offer a “kind of privileged freedom…the power of disconnection from an extensive network” (Laurier 1999:206). As such a boat can be simultaneously explored as “ambiguous space, borderland, panopticon and heterotopia” (Stanley 2002:12).

The idea of the ship as heterotopia was first advanced by Foucault who described it as a space that simultaneously appears open and accessible while hiding “curious exclusions” (Foucault 1986:26). In many respects heterotopias are associated with spaces of freedom that are ungovernable and unregulated but at the same time as spaces that have a system of opening and closing that both isolates them and makes them penetrable. This process, in effect, creates an in group and out group and a situation in which individuals may have “to submit to rites and purifications” in order to enter (Foucault 1986:26). Certainly, as Laurier (1999:206) notes “the yacht gives the impression of being a discrete object, a sealed up place independent of larger human assemblies. That is part of its exclusionary appeal”.

A role of heterotopia can be to “create a space that is other, another real space, as perfect, as meticulous, as well arranged as ours is messy, ill constructed, and jumbled”\footnote{Another common feature of heterotopias is that they are about absenting something; the disposal of the abject. For instance as heterotopia hospitals, nursing homes, funeral homes, boarding schools, brothels and prisons are places where society hides the sick, the old, the dead and the deviant so that we don't have to see or engage with them. As such heterotopias are also spaces that have more layers of meaning or relationships to other places than may be immediately apparent.} (Foucault's 1986:27) in much the same way that recreational boaters view their time on the water. As a heterotopia of crisis (escape from work and rules) or deviance, the
recreational vessel demonstrates the illusory quality and artificiality of normative spatial orders through contrast, intensification, an interruption of traditional time to establish heterochonisms and spaces of transitoriness, and the juxtaposition within a single real place different spaces and locations that are incompatible with each other such as man on water. However, as such, heterotopias also act as “places of disturbance; [where] their existence unsettles the regular categorizations of our living space” (Heyd 1999:161).

While this resistance is based on the idea that the normal rules do not apply here it is also founded in the idea that heterotopias function to absent something and remove it from social purview; the disposal of the abject. For instance as heterotopia hospitals, nursing homes, funeral homes, boarding schools, brothels and prisons are places where society hides the sick, the old, the dead and the deviant so that we don’t have to see or engage with them. As such heterotopias are also spaces that have more layers of meaning or relationships to other places than may be immediately apparent.

Foucault uses the metaphor of a mirror to describe the duality and contradictions of this condition because while a mirror reflects an image it also shapes the way one relates to their own image. As such the recreational boat as a heterotopic space allows the boaters to behave in a certain way (without any significant psychic or physical consequence) that is different (and yet the same) as they do on land. On a vessel land-based ideas and micro-practices and material/physical objects are transplanted to the vessel environment though imperfectly. The boat is a microcosm of life where every action is exaggerated because it is magnified on this scale and infinitely observable. Stanley (2004:14) observes that:

A ship is many things, including a place of overlap between categories, a liminal space, a borderland…some form of counter-hegemonic site or practice. Away from one land, but not yet having reached the other shore, the voyaging ship can be seen as the site where the core and the periphery meet. The core may be seen as land, which connotes the dominant social order. The sea is periphery, connoting space outside the social order. The ship is the border between the two where interplay, transgression and cultural resistance can occur.
Recreational boaters’ claims making strategies in the policy process

As discussed in Chapter 2 interpretive policy analysis (Yanow 2000) involves identifying artefacts that are significant carriers of meaning and the communities for whom this meaning is shared. Based on these key discourses (understood as the specific meanings being communicated through these artefacts) and their entailments in thought speech and act, key points of conflict and their conceptual sources can be identified. In the following analysis I consider how rhetorical or discursive claims making strategies were used to construct credible knowledges, voices, problems and solutions.

The discursive claims making strategies adopted by recreational boaters in the policy process under study were directed at ensuring that their sewage discharge practices would remain unregulated and that the status quo of legal direct discharge would remain. In the policy making stages of recreational boaters made a series of claims and counter claims to achieve this end. These claims, and counter-claims when initial claims were not accepted, were used to construct what information, and from whom, should be considered when making policy decisions about how sewage discharges from vessels should be made.

The recreational boaters’ initial claims centred on ideas of impact and evidence, particularly scientific evidence of significant public health or environmental impact of current boating practices. These claims were presented in a comparatively structured and controlled manner in which recreational boaters positioned themselves as highly knowledgable with respect to both the ocean and the impact of their boating practices on it. When these claims did not achieve the desired outcome, counter claims were mounted that others were more responsible than were recreational boaters for any pollution and should therefore be subject to regulation first. These other included the regulation of land-based sources, particularly sewage treatment plants, and any vessel with a different size, class or passenger carrying capacity to their own. The argument was that once these sources of sewage pollution had been regulated for a period of them, if a marine water quality problem continued to exist the regulation of discharges from recreational boats could be considered, but not before then.
The second series of claims mounted by recreational boaters tended to focus on ideas of fairness and a belief that they were being unfairly targeted and were already overregulated. A strong component of these claims was an overt discrediting of those in favour of regulation by questioning their knowledge of boating and the marine environment. These claims, which the recreational boaters positioned themselves as persecuted and powerless victims, tended to be presented in a significantly more emotional and aggressive manner with bureaucrats and environmentalists the primary target of these attacks.

In many respects the claims making strategies adopted to support this claim were designed to avoid blame and to direct the policy process by limiting the policy agenda and what could be said and by whom, and through scapegoating and passing the buck (Weaver 1986). For instance, the strategy of attempting to limit legitimate participation to individuals with a boating background by denigrating, denying, ridiculing and ignoring all other forms of knowledge was applied to limit the involvement of environmental groups in particular. In addition to questioning their boating knowledge, boaters also attempted to control the environmental agenda through claims that boaters were environmentally responsible, thereby negating the need for environmentalists to participate at all because their views were already ably represented by boaters. This strategy resulted in a tension between a sectional, self-interested pressure group, recreational boaters, concerned to protect their interests by incursions from government into their boating space, and a more altruistic set of interests represented by the environmental lobby, members of the community and the bureaucrats (Jaensch 2002:172).

Finally, the third set of claims took the position that even if desirable the regulation of recreational vessels was unfeasible because recreational boaters would not comply with regulations they did not agree with and even were they inclined to comply they would be unable to due to the absence of any cost effective, practical or safe alternatives for

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2 Such an antagonistic approach is unfortunate because the initial discharge position presented by environmental groups was not too different from that presented by the Queensland Small Craft Council. Furthermore some environmental groups had also advocated for some form of financial compensation and phasing-in period to assist boaters to comply.
managing their sewage practices other than the status quo. This set of claims were presented in a defiant and often humorous tone, which applied elements of the absurd and the vulgar to underscore the ridiculous nature of attempts to regulate boaters’ sewage discharge practices.

The following discussion (reflected in figure 6.1) will show how the substance of the boaters’ claims, progressing in an almost Kübler-Ross-esque manner, became increasingly emotional and aggressive as the policy process moved from a phase of debating potential legislative provisions, with some potential for boaters to influence policy outcomes, to one in which boaters were simply airing their grievances with the legislation and its compliance and enforcement implications. This demonstrates they key difference between the wicked and the unspeakable. It can be observed that in the policy development and review stages of the policy process, comments provided to government, either through formal solicited submissions or unsolicited ministerial, were presented in a generally dispassionate and controlled manner and in accordance with the standard model of rational policy making and its accepted discursive repertoire. Such a focus on “instrumental and rationally procedural frames” is often adopted to mitigate political risk when one is unsure of how their values will be received by the broader community and policy makers (Mucciaroni 2011:210). Indeed in recognition of this accepted practice the boaters characterised their input as “reasoned objection to the legislation” (M1-2005). By contrast comments directed to other boaters through the boating press and club newsletters throughout the policy process tended to be far more emotional and

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3 Kübler-Ross (1970) developed the death and dying grief cycle to explain emotional responses to this taboo issue which pass through the temporary defence of denial; through an angry phase which sought to attribute blame based on perceived unfairness; followed by a negotiating or bargaining phase; depression; and finally acceptance. This cycle of emotional responses is often applied to organisational change models for mapping responses to bad news.

4 As discussed in Chapter 1, input to a policy process will generally receive more favourable consideration from policy makers and others if it is presented in a detached, rational and professional manner. Such expectations are often overt as demonstrated by the content provided in the 1998 Position Paper (QT 1998a:33) regarding the preparation of submissions by interested individuals and organisations which stated the following:

> You will make it easier for your submission to be analysed if: your submission is kept brief and concise; each point is referenced to the appropriate section in the position paper; you attempt to list points so that issues are clear; where you are able to, you support your response with reasons, and where possible suggest an alternative or improvement.
uncensored and more similar to the language used in later stages of the policy process following the promotion of the commencement of the new legislative provisions in 2004, despite their passage through parliament in 2001.
Sewage from recreational boats does not have any significant impact

As shown in figure 6.2 the recreational boaters’ primary claim against the government’s policy position that recreational boaters’ sewage disposal practices needed to change centred on ideas of impact and evidence, particularly scientific evidence of significant public health or environmental impact of current boating practices. The claim that sewage discharges from recreational vessels did not pose an environmental or public health problem was support by two supporting counter claims based on the idea that there was no scientific evidence to prove that discharges from recreational boats posed a problem and the suggestion that if a problem did exist it was caused by other sources which should be regulated first.

![Figure 6.2: Constructing the claim that sewage from recreational boats does not have any significant impact](image)
Regulation is unnecessary because there is no problem

In their 1998 study of the attitudes of US recreational boaters to controversial waste management issues, Baasel-Tillis & Tucker-Carver (1998:16) found that recreational boaters did not believe that they were a major contributor to water pollution and that “a significant number of safety-conscious and environmentally aware boaters…are not convinced that the discharge of recreational boat sewage significantly affects water quality”. This strategy of arguing that that recreational boating only has a minimal impact on coastal water quality, particularly when compared to other sources of pollution, was also used by Queensland boaters to justify the continuation of current disposal practices. For instance it was suggested by one recreational boater that:

… in sparsely populated areas, with fast moving currents and a rather large ocean adjacent to our coastline, just how much ecological damage can two people or even four do, when compared to the pesticides coming off cane farms, dog faeces, oil, and other muck washed by storms from streets, nitrate-enriched fertilisers flowing from farms, and the biological waste produced by big manufacturing cities? Do a handful of cruising yachtsies fit? Or are we a soft target? (Ayres 2003:61).

Boaters argued that rather than being “a real problem” concerns regarding the discharge of sewage from vessels were simply responding to a “perceived problem” (S8-1998) or “what is essential a cosmetic issue” (M6-2004). It was argued that such responses were illogical overreactions because “the small amount [of sewage] discharged would be like a spoonful into a large drum” (S56-1998). They observed that:

… in the context of a few ‘wees and poos’ in the ocean, the perceived problem pales into insignificance when one considers the amount of water that covers vast areas of planet earth—how…could it have a significant impact on any ecological imbalance. Most in fact see it as just another knee-jerk reaction from the minority of tree-huggers in this world, who will willingly protest about anything (Tyler 2009:25).

It was argued that there was no evidence that recreational boaters’ current disposal practices had resulted in any ecological damage when considered in light of the fact that “effluent has been discharged this way for many, many years and there is no sign of any effluent or any damage on any reefs at sea that are used in this way” (S51-1998). Such arguments were based on the relatively small volumes of waste involved, particularly when compared to other sources, including ‘natural’ sources of excrement. These claims making strategies sought to avoid responsibility for changing discharge practices on the basis they did not
constitute a problem. The boaters constructed current vessel-sourced disposal practices as appropriate and not harmful because animal excretion is natural and neither animal nor boater discharges appear to be damaging the environment. The boaters claimed that “marine creatures are constantly excreting, dying and decaying in the oceans. There is nothing more putrid than decaying marine life, yet the ocean remains unpolluted from this source” (Laming 1995:10973).

Based on this notion, the boaters argued that sewage discharges from vessels was “not an environmental issue as birds and sea mammals do it too” (S5-1998) and “human faeces is really no different to pelican, dugong, dolphin and fish faeces, which is needed in the marine environment” (S7-1998). Boaters suggested that those “who demand that legislators do something about the problem” should remember that “whales, dolphins, pinnipeds, and sea otters have been around from 50 to 10 million years and every one of them has pooped into the ocean. Fish have been doing it for 450 million years. Even man has been using seas, lakes and rivers for sewage disposal for millennia” (Lewis 2005:1).

Based on such ideas it was argued that:

... although unattractive, direct overboard discharge of limited amounts of waste into most tidal free flowing waters does it pose a significant threat to the environment? Where boat populations are low, the bacterial contribution from boat toilets is usually minute when compared to the contribution from birds and mammals. In a large number of instances, coliform bacterial of near-shore waters, initially ascribed to direct discharge from boats or defective shore-side treatment systems, was found to be the result of large bird populations (Husick 1996:70).

Even in instances where sewage levels could be considered to be a problem, as in the instance of visible sewage pollution or elevated coliform levels, this unique claims making strategy allowed the boaters to shift the blame from their actions to animals. Such a view took the position that if there was a problem various animals, rather than boaters, were the cause because “seabirds and marine mammals produce very similar wastes to humans and all contain coliform bacteria” (RQYS 1997:1).
Noting that the relative volume of boater to animal waste would be heavily in favour of the animals, the boaters cited the sheer volume of animals excreting directly in the water to no ill effect. They justified their claims on the grounds that “even the smallest fish has to have a poo sometimes, and there are lots more of them, so what do we do about it? (Stanaway 1999a:23), with one boater noting in relation to his tropic fish tank that “the amount of excreta…produced was formidable…a simple extrapolation of this to the millions of fish around the reef leads me to assume that their excreta far, far outweighs any human variety!!!!” (S59-1998). The boaters challenged the government to definitively prove that boaters were a problem in this context: “Perhaps you would be good enough to give your estimate of human excreta discharged from boats into Moreton Bay; Ditto for the natural marine life” (S59-1998).

Together these constructions provided the rhetorical scaffolding for boaters’ claims that vessel-sourced sewage discharges were natural, harmless and did not need to be regulated. If there was a pollution problem, which recreational boaters disputed, these animals were the perfect scapegoat because they could not defend themselves against these claims. By suggesting the need for “fish nappies”, “cow dunnies” (Stanaway 1999a:23) and the like, these animals also provided a focus to deride and undermine attempts to regulate boaters’ sewage discharges which highlighted their perceptions of the absurdity of the legislation.

As shown in the following quotes, part of this catalogue of claims that recreational boaters did not pose a significant sewage risk was the construction of sewage disposal as natural and necessary because many marine animals, particularly “fish which are not the edible type”, eagerly consume the sewage discharged from “anchored boats [and] sharks and other larger fish which discharge a lot more than the few humans on board” (S51-1998). Just as readers of The Coastal Passage were reminded by its editor, “you call it shit but we call it Bream tucker!” (Norson 2005b:1), recreational boaters argued that claims that sewage from boats posed a problem simply represented the views of “textbook academics and environmentalists” who were trying:

… to justify their existence by making wild statements without factual evidence to back them up and I doubt very much if they would know what happens to the small amount of sewage after it is discharged. This is not a very nice subject but happens to be the truth and
The solids in sewage are cleaned up and retreated in very short order by scavenger fish and any experienced ‘boatie’ has seen this many times (S28-1998).

Environmental representatives disputed these ideas arguing that “the inference that sewage discharge is not environmentally damaging, a risk to public health or waters are not polluted, is irrational” (S82-1998). Submissions from other members of the public also disputed the boaters’ view noting in their experience the lax and “disgusting” sewage disposal practices of recreational boaters were affecting the marine environment and rather than being consumed by fish the evidence of their disposal practices could be seen.

Having been a diving instructor for the last seven years I’ve seen these such effects on both natural and artificial reef ecosystems and in many areas the problem is disgusting! (S110-1998).

The need to regulate the actions of others

Despite boaters’ belief that their sewage discharges did not have much of an impact, during the marine sewage pollution discussions in government texts, non-boater public submissions and the general press, recreational boaters were considered by the majority of stakeholders to be a significant contributor of sewage pollution in the marine environment. General members of the public who provided submissions believed that “sewage provisions are necessary…[because the] impact from small boats is considerable” (S61-1998).

As shown in the quote that follows, a key discursive strategy used by boaters to shift responsibility for the management of sewage pollution away from boaters was to highlight the damaging actions of others and to suggest that these activities should be regulated or managed before boaters would be required to change their practices.

It is pathetic when one for instance considers the amount of animal waste that has found its way into our waterways, over literally millions of years. Somehow or other we have all survived! And what about industrial pollution, chemical spills and the like—surely we need to sort that out before we worry about a few deposits from boaters who sadly seem content to drop their waste when and where they please (Tyler 2009:25).

Although government, mariculture and environmental interests and the general communities constructed recreational boaters as a significant contributor to marine sewage pollution, recreational boaters provided counterclaims that land-based sources of pollution, particularly discharges from council sewage treatment plants and land-based
run-off, were the primary causes of marine sewage pollution (figure 6.3). As previously discussed, recreational boaters also argued that evidence of sewage in areas frequented by vessels could also be predominantly explained by the excretion of marine animals and seabirds in the adjacent area.

![Figure 6.3: Constructing the cause of marine sewage pollution](image)

The recreational boaters argued that irrespective of any boating regulations brought in “the only way we will be able to reduce the pollution in our oceans is to reduce the pollution on our mainland” and challenged the “bureaucrats of the government” to specify exactly “what measures have been undertaken to stop all this land based pollution from entering the waterways and what action are you taking to stop it? Rather than blame the recreational boaties?” (Hodson 2008:1).

The boaters listed a catalogue of land based sources of the pollution that they believed were at least, if not more, damaging to the marine environment than their sewage discharges including “dog faeces” (Laming 2000:572), “stormwater from roads and gardens contain oil, dust, and chemicals and discharge without treatment” (S2-2001) and “all those harmless fast food packets, cigarette butts, brake lining dust, agricultural chemicals, bottles, ATM receipts and, heaven forbid, native animal species faeces into the waterways” (A. Lucas 2004:2). They argued that because these “other pollution sources are not so generally recognised...pollution is seen by river and
harbour users and beach users and immediately vessels get blamed for it” (Laming 2000:572). The boaters and their advocates claimed that:

... environmentalists close their eyes to the real culprits – professional trawler fishermen ploughing up the bottom; farmers who put chemicals on their land which is washed into rivers and streams by rain and thence to the Bay; and industry which disposes of waste in areas that also allows it to find its way to the Bay (Kennan 1997c:131).

It was suggested by boaters that while “the impact of untreated sewage from the recreational boating fleet in Queensland is minimal...Of greater concern are sewage spills which occur from time to time from urban sources” (McGuire 2008:26). They noted that in relative terms the quantities of sewage being discharged by councils, although it may have undergone some form of treatment prior to discharge, was considerably greater than that being discharged by vessels.

...A boat underway offshore...discharges a load from the toilet. What change to the environment? A litre or so of poo diluted in the sea would be insignificant. Its lack of repetition or volume would preclude any change to the pattern of life below the event...even in a marina, boat sewerage is more an aesthetic issue (granted a serious one!) ...A town discharges its sewage into the sea...Now you have something. The quantity of discharge involved in a static location finally challenges the sea water to waste ratio. (Norson 2005b:1).

Recreational boaters particularly seized on state government reports of councils discharging secondary-treated sewage into Queensland’s waterways and councils’ concerns over the costs associated with upgrading municipal sewage treatment facilities to tertiary standard.5 For instance, in response to an incident involving the spillage of raw sewage by a malfunctioning council sewage treatment plants into Brisbane’s Toowong Creek that the Council advised was not a threat to public or environmental safety recreational boaters justly asked:

If millions of litres is no problem, why is one lonely little thoroughly macerated stool emanating from a boat’s toilet so bothersome? If we work on the arbitrary figure of one litre per pump-out of a straight through toilet, that means ten million yachts could anchor in Toowong Creek and all pump-out at the same time, and there would be no serious pollution. Sounds like cruising boat heaven (A. Lucas 2004:1).

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5 Secondary treatment removes dissolved and suspended biological matter. Tertiary treatment provides a further treatment stage to raise the effluent quality before it is discharged to the receiving environment and often involves nutrient removal.
The boaters argued that there was a double standard occurring in which “the yachty can take a dump over the side and be quite legal, but if he does use a marine toilet and then puts that over the side - well that’s illegal - I think. I also think it is unreasonable for me to be expected to have a higher quality of discharge that the rest of Brisbane in terms of what comes out of the storm water drains” (Crawford 2004:1). Boaters alleged that the Government had no intention of making Councils clean up their act and were therefore focussing on boaters because they were an easy target relative to industry. Some even suggested that there was a “political agenda” driving the legislation and that private boat owners were “being subjected to high levels of innuendo and discredit in order to hide the high levels of municipal discharge of sewage and other pollutants…[because] by blaming the few but visible members of the private boating community, it appeases the lobbyists and affects very few adverse votes and reduces the cost to government of fixing the municipal human waste problem to near zero” (M8D2004). A similar view was express in a submission which noted hyperbolically that:

I believe it was Joseph Stalin who said; “One death is a tragedy, ten thousand is a statistic.” Well he should know. He killed eighteen million of his own people in PEACE time! But what has this got to do with the latest round of sewage laws handed down to us from Queensland Transport? It is this: When one live-aboard sailor pumps his toilet once, he is liable to a fine in the many thousands of dollars. If a large corporation dumps millions of dollars of raw sewage into the ea, it is treated more as a statistic than an offence! (A. Lucas 2004:1).

Based on the idea that “local sewage treatment works would do more harm than a few boats” and the understanding that Councils alleged these spill incidents posed no environmental or public health problems, boaters argued that therefore “Queensland waterways are not polluted and no regulations are required” (S56-1998). While environmentalists agreed that land-based contributions were significant and also needed to be addressed by the government, they disagreed with the boaters assessment that they should not have to manage their sewage discharges since “the ideal situation is that no sewage (or other pollutants) enter the coastal seas of Queensland” (S100-1998). They also expressed concerns that “smaller craft [not be] allowed more freedom. When you consider the numbers of small craft in our rivers and harbours, they outweigh the people travelling on commercial vessels” (S94-1998).
Decisions should be based on science not politics

In a submission to the initial review, a non-boating member of the public noted that while she could not “talk scientifically” about the problems caused by sewage discharges from boats, in her opinion “visually raw sewage is a problem now in areas of less tidal flow where vessels congregate” and it was her judgement that “any person who can afford a vessel capable of discharging raw sewage…can afford the responsibility that goes with it” (S122-1998). While such a view was not uncommon among similar submissions from non-boaters, when presented with attempts to regulate their boating practices on environmental grounds, boaters often argue that there is little scientific basis for decisions (Löfstedt 2001:43).

The Queensland Government presented their scientific claims in the context of the precautionary principle based on the notion that “in cases of uncertainty, [we must] act so as to avoid the worst possible outcomes” (Bennett 2000:224). However, while such a risk management approach often is adopted by government, it can be seen by those impacted to be based more on appeasing the green lobby or other vocal interest groups, than being based a facts-based scientific assessment and an appropriately targeted regulatory response based on indisputable scientific evidence. Indeed although concepts like the precautionary principle are often presented as an integral part of scientific risk assessment and analysis they can equally be damned by opponents as a unsuitable and underwhelming “would-be alternative” to real science (Bennett 2000:223).

Because such an “appeal to scientific evidence is supposed to settle a matter” (Skillen 2006:xi) it is a common rhetorical strategy. As a result, both boating and environmentally motivated respondents called for more science to be presented by Government to support their specific catalogue of claims and for the need for regulators “to resist lobby groups using emotive arguments not backed by factual data” (S62-1999), be they boaters or environmentalists. Recreational boaters were highly suspicious of what they considered to be “pseudo-scientific” ideas like the precautionary principle which they disregarded as environmental nonsense designed to hide the absence of science rather than to minimise harm. Boaters in particular argued that although “the sewerage discussion has been operating under terms that are more dramatic than scientific” (Norson 2005c:1) the “toilet waste disposal problem [must be] based on science, not politics” (Husick 1996:70). Science was invoked as an
independent, apolitical and rational arbiter that would ensure that all concerned could “take a rational look at the problem, before such ill-advised and unsound rules are imposed” (Husick 1996:69).

Boaters were highly suspicious of the use of the precautionary principle for a number of reasons, the no least of which being that “by definition, any precautionary approach seeks to shift the onus of proof, from requiring ‘evidence of harm’ to ‘evidence of no harm’ (Bennett 2000:224). As a result, the perceived scientific ambiguity inherent in concepts like the precautionary principle prompted boaters to suggest that either there was no science to prove that boaters were causing any problem or that the available science was being inappropriately applied in a deliberately deceitful manner:

The Government says that according to its ‘studies’ boaties ‘contribute to pollution’. The word ‘contribute’ infers some substance but what if it is used in a technical sense? For example, every breath you draw right now increases the amount of carbon dioxide in the atmosphere, therefore you ‘contribute’ to global warming. In the strictest sense that is true. Of course pointing the finger at you as the fault of global warming for breathing would be pretty dumb…but no sillier than the marine poo laws. The worst thing that could result from this miss-information is if boaties started to believe the rubbish themselves (Norson 2005a:18).

Such a discrediting of science which concedes its limitations is not uncommon (Caudill & LaRue 2006). Boaters questioned whether the public and legislators had “been shown sufficient scientific evidence” to justify the legislation and its proposals (S57-2001). Boaters challenged the government to present “concrete evidence” that there was now or could be in the future “an environmental or health risk from the amount of greatly dispersed and highly diluted sewage from pleasure vessels in Qld water” (S18-1998). They suggested that despite government claims that sewage from recreational boating contributed to sewage pollution, in reality there was no scientific evidence that sewage from boats posed either a public health or environmental problem and that the Government was “not being upfront…in regard to research data” (Scott 2004e:12). They further argued that TOMPA represented “legislation that cannot be enforced and introduced without sound reasoning and lacking scientific proof” (Scott 2004a:1).
Boaters argued that “there does not seem to be any scientific evidence offered anywhere to suggest the necessity of these regulations. It all seems to be based on a perceived notion” (S8-1998). They suggested that while they did believe “in the pollution of our waterways” they “seriously question[ed] whether enough research has been done justify a section of the community being put to enormous expense” (S59-1998). In calling for scientific evidence that could conclusively prove that they were a major contributor of marine pollution, boaters argued that its absence absolved them of responsibility for contributing to marine pollution. They argued that “there is NO research that proves boat sourced sewerage is a threat to our environment” and that there had never been “in the history of Australia, an event involving marine sourced sewerage that would reasonably be considered to threaten the health of the marine environment” (Norson 2005b:1).

Boaters’ few attempts to use science themselves as part of their rhetorical arsenal lacked precision and accuracy and tended to affect their credibility to speak on scientific matters. For instance an article published in The Coastal Passage designed to refute the government’s scientific claims of potential impacts caused by sewage discharges from vessels made the unfortunate mistake of repeatedly referring to faecal chloroforms rather than faecal coliforms:

> It appears to be a little-known scientific fact (although it is actually a well-known scientific fact) that faecal chloroform’s (the bad guys) and urine are quickly dissipated in salt water and are in fact chemically neutralised by the seawater (Ryman 2005:1).

Where science was presented to defend Government proposals to regulate sewage discharges, boaters argued that the evidence presented regarding the potential public health and ecological impacts of sewage discharges were not applicable because they did not isolate the vessel-sourced component from the land-sourced components. They further argued that it was really a question of relative quantity than effluent content.

> I feel at the present time no new regulations are required as most boaties are responsible people and want to keep the waterways clean…If land based sewage was stopped from being discharged into the sea, then a study could be done on the water to see if boats made any effect. Maybe all this regulation, etc. would not be needed (S56-1998).

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6 Chloroform (CHCl3) is used as a solvent in refrigerants, propellants and resins and was once widely used as an anaesthetic in human and veterinary surgery. Coliform is the bacilli that commonly inhabit the intestines of humans and other vertebrates and is used to indicate the presence of faeces.
By contrast environmental groups argued that “based on existing evidence the sewage discharge to the marine environment [from vessels] is environmentally harmful” (S99-1998) and suggested that both the recreational boaters and the legislative provisions were operating “based on the outdated, subjective, unscientific notion of the assimilative capacity [of the ocean]” (S99-1998).

**Recreational boaters are already over regulated**

As shown in figure 6.4 recreational boaters second major claim centred on issues of fairness and over-regulation. A common expectation of those engaged in a recreational activity is that few rules will be placed on their leisure activities (Rojek 1998:21). Other studies of recreational boater attitudes toward regulation have found that many were wary of additional restrictions being applied to what they considered to be an already over regulated leisure activity in terms of regulations pertaining to fish harvesting, waste disposal, safety and navigation (Gray et al 2010:587). In such instances boaters tend to construct attempts to regulate their boating practices as “over regulating the little guy” and “another example of government bureaucracy swatting flies with a sledge hammer” (Baasel-Tillis & Tucker-Carver 1998:13).

As observed in Chapter 5, recreational boaters resisted the imposition of sewage discharge restrictions on the grounds of the unnecessary economic impost and regulatory intrusion that would be imposed on their leisure pursuits. This prominent claim was presented in the context of an over regulation of recreational boating activity and an associated loss of recreational boating freedoms, particularly in the context of other restrictions on boating activity.

*In the last 20 years, we have seen the introduction of a great number of limitations on our recreational boating. No go zones on our waterways, bag and size limits to our fishing, the introduction of marine sewage legislation and closures of areas of our natural wonders such as marine parks and the Great Barrier Reef. During that time, we have copped increased registration fees, direct and indirect taxes on our boats and other gear, permit requirements for visitations to islands and national parks just to name a few of the restrictions placed on our recreational boating...We have as a group let too many restrictions slip past without too much of a fight to preserve our God given freedoms* (Scott 2004b:1).
Replete with possibly unintended double entendre, “most down-to-earth yacht owners” argued that that they were “straining to come with grips with new state environmental laws that tell them where they cannot relieve themselves” (Butt 2004:7). It was argued that “all this legislation is making a trip on the water stressful, rather than the relaxing activity it used to be” (M11-2004). Some recreational boaters believed that the introduction of such severe discharge restrictions would have the potential to force many boaters to either “give up boating or get ready to contribute a similar or even greater amount to Treasury coffers in fines and penalties” (Scott 2004c:19). The argued that the severity of TOMPA’s sewage provisions, even in their revised form “seems to put a stop to one of the oldest and most enjoyable pastimes of boaters on the water where they could spend their weekends and holidays tinkering around painting and varnishing, yarning, sleeping, fishing and pulling the chain without fear of conviction” (Dorey 2004:4). Furthermore, they saw the legislation, in its various incarnations, as the thin edge of the wedge where there was a “danger…of creeping legislative encroachment” (Ayres 2003:59).
Many of the arguments put forward by recreational boaters to resist attempts to regulate their boating practices were tied to the idea it was simply “politically correct and easy to target the yachting community on this issue” (M3-2004). These claims relied on discrediting any non-boating knowledge and highlighting the environmentally responsible nature of boaters.

**Regulating recreational boaters is biased and unfair**

Recreational boaters often exhibit high levels of mistrust of government and strong perceptions of overregulation (Gray et al 2010) which are likely to increase both their level of dissent and their participation in policy making processes relative to other stakeholders. Indeed comparatively few stakeholders other than boaters participated in the policy process. This mistrust is linked to boater perceptions of a distant government bureaucracy with a lack of understanding of local issues (Gray et al 2010:589), a questioning of the science behind regulatory decisions (Löfstedt 2001:43) and the fairness of regulating recreational boaters when their impact on the marine environment is comparatively small when compared to land based and other sources (Baasel-Tillis & Tucker-Carver 1998:13).

Queensland’s “cruising yachtes of ordinary means and liveaboards in particular” felt that they were being unfairly targeted relative to land based polluters and other vessel classes (Ayres 2004:6). These recreational boaters positioned themselves as having been “singled out as easy targets” (S105-1998). This view was tied up in an almost victim-like mentality where they alleged that “this automatic persecution of the live-aboard sailor is far from new” and “if raw sewage is as big a threat as they say…instead of hounding us, help us. (A. Lucas 2004:1-2). This feeling of overt persecution and attack can be understood in the context of the quote below:

*And if just a tiny percentage of the half billion dollars they forgave Iraq for its wheat debt spent on pump-out stations then we could have half a dozen in every port by the end of the year. But no, that’s all too un-economical. Much better to promulgate unworkable laws, send out officers to collect fines and to hell with the constitution. If can’t catch them in the act, then we will deem them to be breaking the law and still fine them. It’s this attitude that we, the boating public, totally reject become not only are we being unfairly targeted, but we are targeted with laws that are a frightening reversal of democratic principles. If we can be deemed to have used the ship’s toilet when in fact we have just been ashore to use a public facility, what is the point of true innocence? (A. Lucas 2004:2).*
The boaters pleaded for the government and others to “please do not assume the boat owners guilty unless it can be proved that their effluent does harm the marine environment” (S59-1998). As part of these claims, the boaters considered the regulation of their sewage discharges to be particularly unfair given that the prosecution (and persecution) of recreational boaters was unlikely to result in any appreciable environmental or public health benefits:

We should not lose sight of the fact that the problems (and we don’t have any apparent pressing ones) for Queensland are derived from onshore source. Accordingly to apply stringent restrictions on a minor sector of the community while the major problem areas remain if not unaddressed, not resolved cannot logically be supported. The classic argument of having to start somewhere is not true grounds for using an Act to further an unbalanced approach in addressing a community wide problem. Sound logic would surely lead to an approach of solving/reducing the major pollution sources as a priority. Progress in this regard should be demonstrated. Why should the major thrust be towards resolving probably well less than 1% of the problem? (S118-1998).

Whether for or against proposals to regulate sewage, Berg (2004:47) notes that in sewage debates “political organizing seems to be most effective when there is a ‘bad guy’ to fight against”. The boaters used these arguments to effectively portray the regulatory agency responsible for developing and enforcing TOMPA’s sewage provisions as a body that could not be trusted by boat owners, did not base their decisions on scientific fact and knew nothing about boating. This can be compared to the positioning of their recreational boating organisations, and by extension themselves as boaters, as both “highly respected in the marine industry” and as having put “a lot of thought and research” into their alternative proposals (Keenan 1997a:118). By sharp contrast, those developing the legislation were pejoratively characterised at best as “well-intentioned but misinformed rule makers” (Husick 1996:71) and at worst as needing “to be reminded that it is not up to them to play GOD” (Scott 2004a:1). This mistrust was compounded by what the boaters considered to be a lack of boating knowledge and expertise among the “non-seagoing, unpractical and inexperienced desk skippers” making the policy decisions (M1-2001).

They demeaned those responsible for developing and implementing the legislation as being nothing more than “legislators and bureaucrats, some of whom have never been on a boat, [who] continue to get things wrong” (Scott 2005:1). It was seen that the legislation was simply “another flawed proposal that was being promoted by people with the best of intentions but little if any
actual experience or knowledge of the operations of marine craft” (S117-1998). When disparaging those that boaters believed to be responsible for introducing the sewage regulations, boaters pointed to “a pathological abhorrence of private boat ownership” as the motivation for “pushing this barrow and... joy at this move to stifle ordinary individual’s rights to the proper enjoyment of our public waterways” (M8-2004). They believed this to be underpinned by a politics of envy based on a lack of boating skills:

I have noted before how politicians do not have boats. In fact I have come to the belief that politicians are like the abusive driver. Sensing that boaties are better and freer, they react with abuse because of concerns for our “safety” or even “the environment”. Yeah, right! Maybe the real reasons are the power and the deep seated need to justify their own nature as some kind of virtue. (Because I am inadequate to do what they do I will proclaim that what they do is wrong, unsafe and bad for the environment!) They would not last a week out here. Boat people are self sufficient. Boat people revel in isolated beauty and challenging circumstances yet engage and enjoy social gatherings with like kind. Cruisers are thinkers, not takers, generous not greedy...To anchor amongst cruisers is to repair some faith in the species (Norson 2004c:5).

Even when the State attempted to engage in consultation with boaters, as they had requested, this was portrayed as a sign of weakness and a lack of sufficient boating knowledge to get it right without first deferring to the recreational boating experts:

...the State Government through Transport Queensland has really raised a stink with its plan to force boat owners to install holding tanks for waste. It reeks of the bureaucratic mind. First we have a badly drawn-up bill that could never work. Then, a team of fixers is brought in to wave a magic wand. Problem is, these fixers are not experienced in boating, so they first have to study the industry, running a series of workshops along the coast (Keenan 1997d:140).

At times those employed in the Transport Department were given the benefit of the doubt, but generally only when it would serve to further undermine the Environment Department as evidenced in boating journalist John Keenan’s very public criticisms of the legislation in the Sunday Mail:

It is about time commonsense took over this discussion. Many Queensland Transport marine section officers are boaties themselves and know the problems involved. But when officers from that other department which believes fish, plants, birds and animals are more important than human beings become involved in decision-making, then practical commonsense usually floats out with the tide. How can the boating fraternity – and
practical officers in Queensland Transport — be expected to take these “environmental advisers” seriously? (Keenan 1997b:155).

Recreational boaters considered this lack of boating knowledge to be the basis of what they perceive to be flawed policy making that was founded on an inherent bias against recreational boaters and toward non-boating environmental interests and “greenies who have never been on the water (they get seasick)” (S50-1999). There were strong allegations of bias in favour of environmental and other non-boating interests in the framing of TOMPA’s sewage provisions and indeed in introducing them at all. Claims of environmental bias and pandering to environmental interests were made by recreational boaters who believed that the introduction of the legislation was simply about “being seen by the ever-increasing band of ill-informed ‘greenies’ to be acting responsibly” (Tyler 2010:7). They argued that:

Despite the supposed lengthy consultation process, bureaucrats and politicians, some of whom have probably never been on a boat, have bowed to pressure by a vocal environmental minority and over-reacted with the introduction of an absurd set of rules (Scott 2004d:52).

As shown in quotes from The Courier-Mail below, boaters believed that “fear of sewage discharge from vessels in Queensland [had] been beaten up by pseudo environmental lobby group executives pushing their own political or other agenda” (S70-1998). Recreational boaters also alleged that environmentalists “determine[d] to protect all marine flora and fauna…[with] little consideration to the danger to human beings” (Keenan 1999a:130) had taken over the department responsible for developing and implementing TOMPA’s sewage provisions⁷.

Interestingly this idea was countered by claims by community members and environmentalists who considered the considerable changes to the legislation to have been driven by the powerful boating lobby. Despite boaters claims to the contrary, it was considered that “this compromise being attempted appears biased in favour of the small vessel” (S11-1998). Environmentalist and members of the broader community called for “NO further

⁷ For example, Sunday Mail columnist and recreational boating advocate John Keenan alleged that “In 1994 Queensland Transport issues a formal warning to boaters that on-board sewage holding tanks could leak poisonous and deadly gases. Yet the department, pushed by officers seconded from the Department of Environment, is bulldozing forward with a senseless and dangerous solution to a problem that does not exist” (Kennan 1997c:131).
reduction of the legislation. No more watering down to please the boat owners!” (S7-1998) and for legislators to “resist lobby groups using emotive arguments not backed by factual data” (S62-1998). For instance a North Queensland Environmental Group suggested that:

To implement the proposed provisions as they stand now would achieve ‘compliance’ largely at the expense of the intent of the Act, just to satisfy the 20% of respondents who want to go on polluting the sea. As this boating 20% is likely to be representative of a very much smaller percentage of the general population, even in this narrow sense the Department would not be serving the interests of the community as a whole in simply giving this small minority the legal right to continue to act irresponsibly (S100-1998).

Because boating occurs in an “unknowable, unpredictable world of fallible people, unreliable technology, and lousy weather…mariners rely on one another to make sense of what they face and what they should do about it” (Weick 1999:22). As such boaters tend to be deeply mistrustful of people they perceive as being either outside or against boating. Recreational boaters saw the consultative processes as a cynical and “political exercise to deal with public perception” (S76-1998). By virtue of the impact of the proposed legislation on their operations and their intimate knowledge of recreational boating, in their view the only people whose views should be considered in the policy process were those of with a boating background.

These claims rely on recreational boaters making a clear distinction between who belongs on the water and who does not and by virtue of this who gets to have a say on matters to do with boating and who does not. Land-lubbers clearly do not: “they don’t belong here!…These are land people” (Norson 2004c:5). Furthermore, even when on a boat it was observed that these land people did not possess the knowledge of boating that afforded recreational boaters the right to speak.

How can I say that? What kind of territorial right did I speak to? Not a right but an observation. These are land people…these are the greedy, grasping and selfish that make a lifestyle of making their way by what they can take, nip off or squeeze from others. They don’t belong out here. This is where they may find their welfare dependent on their own wisdom and work ethic, their own preparation and skill, where punishment is doled out in strict fashion to offenders…The sea is an absolutely impartial judge and jury.” (Norson 2004c:5)
They also made a distinction between real boaters and pretenders, suggesting that if there were any problems caused by sewage discharges such as “unsightly whole faeces coming from some vessels constructed by amateurs” (S70-1998) it was these boaters that were responsible, not ‘real’ boaters. Such a view can be compared to Laurier’s (1999:203) observation that so-called “fair weather sailors” are mocked as not being “real sailors” and consequently dismissed as having wasted their money on boats.

These ideas were also important in framing their claims regarding who had a legitimate role to participate in the policy process or indeed who had the right to comment on recreational boating practices at all. Environmentalists emphasised that “the majority of Queensland’s population lives along and regularly uses the coastal and marine environment for a variety of purposes other than boating” (S153-1998) and argued that as such “under common law the marine environment belongs to the entire community [and] the community are entitled to comment decisions which affect their well being” (S99-1998). However, based on recreational boater submissions it was obvious that as far as recreational boaters were concerned non-mariners, particularly “greenies and about 90% of the population are against them” (S8-1998), had no right to speak. However in some respects this was simultaneously at odds with and supported their claims that boaters were by nature environmentally responsible and did not need to be regulated.

Yachties who dwell on board their vessels tends to be environmentally conscious creatures. They live on the water and deplore anything that pollutes their haven. They have no desire to see anything in the way of unsavoury sewage floating past their homes and habitually do their best to keep effluent under control. They cannot, of course, shut down their bodily functions so their effluent contributes to about 2% of waterway pollution in Australia…but the current hammer-fisted tactics of the state government are not a solution. They are a crude attempt to appease someone somewhere without thinking through the repercussions (Bates 2004:6).

**Recreational boaters are environmentally responsible**

Despite their mistrust and disdain of environmentalists and environmental arguments in favour of the restriction of sewage disposal from vessels, recreational boaters were quick to lay claim to their own environmental credentials in attempts to resist regulatory attempts and to position themselves as “environmentally conscious and caring” (S65-1998). They argued that “almost every cruising yachtsperson…is a de-facto greenie. I have never met one who
wantonly despoils the areas we all love. So why the draconian regulations?” (Ayres 2003:46). They also argued that “the excellent record of responsible recreational boaties should be considered more” (S107-1998) and that legislators and the public needed to recognise that “preconceived ideas that all boaties are environmental menaces is far from the truth. The vast majority of boaties…are very aware of the fragility of their chosen pleasure and working environment” (S117-1998). In the boating press this environmental narrative was promoted as a core boating ethic based on the idea that “on the whole, boaties are responsible people when it comes to protecting the environment. They are the ones out there with their families enjoying it, so why damage it?” (Keenan 1997b:155).

Such a rhetorical position is not an uncommon one. For instance, Löfstedt (2001:37) found that in defending their hull anti-fouling practices Swedish recreational boaters likewise positioned themselves as being “environmentally knowledgeable, loyal, innovative, and highly able…[and] highly concerned about the environment”. Like the Queensland and Swedish recreational boaters, Baasel-Tillis & Tucker-Carver’s (1998:13) study of American boaters also saw boaters highlight their environmental credentials alongside perceptions of the negligible impact of vessels compared with other sources of pollution.

Non-boaters were understandably sceptical about boaters’ claims about their environmental credentials noting “the boaties we’ve observed on the Mooloolah River are certainly not the environmentally sensitive people the position paper writes about” (S142-1998). Environmentalists also disputed boaters’ claims of environmentally responsible behaviour, noting:

> It would appear, from our discussions within boating members and inhabitants of a local marina, that even amongst yachties there is only a minority whose behaviours evidences a high degree of environmental consciousness. In fact, those yachties who act with environmental responsibility are voluble in their condemnation of the notion that the majority of their fellows are environmentally conscious. Although it is true that most enjoy yachting for the ability to interact with the natural environment, the enjoyment often stems from the distance from the pressures of urban life and the ability to move on, and from recreational, scenic and fishing opportunities. These enjoyments and attitudes do not necessarily imply environmental consciousness in the sense of being prepared to curtail one’s activities for the sake of the long-term health of the ecosystem. Further, a North Queensland boating association was formed in recent years that was based on a belief that boaties should be ‘free’ of the constraints of law. Regardless of claimed environmental
credentials, the sewage from those boaters who claim to be environmentally conscious affects the marine environment just as much as sewage from anyone else (S100-1998).

They also questioned the sagacity of introducing regulations with any form of self-regulation because “allowing flexibility relies on the goodwill and conscience of boat owners who may not always be conscientious about the marine environment” (S153-1998). Despite counter claims by boaters it was clear that boaters’ commitment to environmental responsibility were subordinate to ideas of leisure and enjoyment if the two were seen to be in conflict. An example of this attitude is well illustrated in a submission which stated “We have one of the best boating areas in the world so please make sure that any hardship placed on this enjoyment is absolutely justified” (S59-1998).

Recreational will not and cannot change their sewage disposal practices
Implementation may founder if a group will not buy into the proposed policy because of what that policy ‘means’ to them (Yanow 2000:21). Arguing that regulations will be difficult to enforce if introduced is a common rhetorical strategy to resist new regulation. These difficulties are often raised in the context of the unavailability of cost-effective and practical alternatives (Löfstedt 2001), confusing or unclear legislation (Gray et al 2010), and the likelihood that boaters will simply disregard laws that they do not support (Baasel-Tillis & Tucker-Carver 1998). As shown in figure 6.5, the essence of such a position is that since the Government had metaphorically “put the nightcart before the horse” (Bates 2004:6) by bringing in a law that cannot be complied with and cannot be enforced, the laws should be repealed on the basis that they are “bad laws” (Crawford 2004:1).
Recreational boaters won’t comply with laws they don’t agree with

Just as Löfstedt (2001) found that Swedish recreational boaters would deliberately circumvent the phase out of antifouling paints in Sweden by buying their paints from outside Sweden or via the internet, the editor of Go Boating threatened that many of Queensland’s “boaties might simply opt to ignore the Legislation” (Scott 2004f:12). It was argued boaters would simple adopt the quasi-chamber-pot option—“shrug and say they will get a bucket and chuck it instead of using their manual toilets” (M3-2004)—or the “one over the side” option (M11-2004).

Early in the review of TOMPA’s sewage provisions it was suggested that recreational boaters would “react unfavourably to unnecessary and overly restrictive ‘rules’” (S65-1998) and “not willingly accept what they regard as inappropriate, unnecessary or unworkable environmental law” (Husick 1999:69). They stressed the need to achieve “voluntary compliance by boat owners” through “reasonable and sensible” rules (S68-1998) and pointed to the existing levels of noncompliance to support such a stance arguing that “people in small ships who do not have a toilet on board and find the need to urinate will still do it over the side” (S56-1998) because “if ya
gotta go, you’re going to go!” (S65-1998). They suggested that it would be “hard to imagine that compliance by small private vessels would be anything than zero” (S68-1998). Indeed, prior to the introduction of the new legislative and regulatory changes, responses to the 2002 Queensland Recreational Boating Survey showed that thousands of Queensland’s recreational boat owners were pumping raw sewage into the State’s waterways with “more than 40% of the state’s boaties regularly discharg[ing] untreated waste into the water” (Lawrence 2002:20).

Recreational boaters noted if they disagreed with the laws they would simply “motor out and empty it out at sea” (Redcliffe Bayside Herald 2004:6). Two years later, the 2004 Queensland Recreational Boating Survey found that 17% of recreational boaters still admitted to discharging untreated sewage directly into waterways despite such discharges possibly being illegal depending on the number of people onboard a vessel and where it was discharging. This situation was widely reported in the press under banners like “reputation of boaties blown out of the water” and noting that these discharge practices continued “despite the introduction of new laws which from 1 January banned the dumping of sewage in marinas, boat harbours, canals and the Noosa River System” (Wardill 2004:7).

Despite the significant changes to the legislation and number of concessions made to recreational boating concerns, some in the recreational boating press, most notably contributions to The Coastal Passage, continued to promote discord regarding the range of potential fines and prosecutions possible under TOMPA and the likely difficulties in enforcing the legislation. The Coastal Passage created an internet catalogue of articles extracted from the publication on the regulation of sewage called “The Poo Pages!” which it characterised as “a collection of articles that exposed Queensland’s Marine Sewerage laws for the stupidity that they are” (The Coastal Passage n.d.). These views were presented against a backdrop of the unfair intrusion and persecution of boat owners when the “the dollop walloper”¹⁸ (Ayers 2004, 2005), meaning police and other on water enforcement officers, come to visit “intent on abusing your rights” (Norson 2005a:9). These publications took an

¹⁸ The term ‘dollop walloper’ is not a common boating term. Three definitions are provided for the term walloper in The concise new Patridge dictionary of slang and unconventional English (Dalzell & Victor 2008). A dock walloper is a thief who steals cargo before it has been unloaded or passed through customs (106); a base walloper is a military officer (36); and a rod walloper is a male masturbator (545). Given the context in which the term was used all of these definitions may have some degree of potential relevance or double entendre implication.
openly antagonist and aggressive position with respect to the enforcement of the laws, often resorting to exaggeration and hyperbole to underscore their perceived lack of rights and unfair treatment relative to other ‘law breakers’ because “a floater in the Broadwater renders you with less rights at law than if you had committed murder in the same place or indeed were speeding in the same place” (Crawford 2004).

These recreational boaters called into question the motives of enforcement officers and encouraged fellow boaters to treat them with contempt, to not allow them to board their vessels to enforce the regulations, and to not answer any questions put to them suggesting that:

_In short, since there is no successful answer to an “are you still beating your wife,” question, don’t answer. Watch every word…they are!…If I had a job that required me to invade a fellow citizen’s home…I would refuse or quit on the spot…The defence of “I was just following orders,” hasn’t worked since the Nazis tried for it._ (Norson 2005a:9, ellipses in original)

The (un)availability of cost effective, practical alternatives

Many boaters suggested that in the absence of cost effective and practical alternatives for boaters to manage their sewage in the manner prescribed by the state the legislation, in so far as it applied to recreational boats, should be repealed. Certainly such a claim attracted some degree of support for the provision of such facilities by government. For instance, in the Parliamentary debates regarding TOMPA’s sewage provisions members from both sides of the House emphasised the importance of providing sewage pump-out facilities to facilitate compliance with TOMPA’s discharge restrictions. The provision of such facilities was deemed vital because:

_Unless there are pump-out facilities in the various harbours where boats come in, there is always the inclination of boat users to pump out their tanks. They have gone to the trouble of putting effluent in the tank and if there are not good facilities into which they can pump that out, there is a chance that it would be pumped out into the wrong places. It is very important to have those pump-out facilities in place in line with the enforcement regulations concerning holding tanks in vessels_ (Laming 2000: 572).
Such a view was shared by members of the public who petitioned the Government to ban the use of houseboats in certain areas “until sewage and refuse stations are established to cope with the present and future demand” and to “provide adequate resources and manpower to police the current and future legislative requirements” (Queensland Parliament 2001a:972).9

Despite this view that sewage pump-out facilities were the answer to managing sewage discharges from vessels, in their study of sewage pollutant loads from recreational boats in Queensland’s Moreton Bay, Leon & Warnken (2008:844) reported that there was low recreational boater use of the few pump-out facilities available.10 Many boaters did not consider holding tanks and shore side sewage pump out to be a viable solution for managing sewage discharges because they are “smelly and offensive to the owner” (S89-1998). Boaters noted:

The Government is looking at spending several hundred thousand dollars (it could run to millions—no one seems to have a figure) installing shore-based disposal stations where boaties are expected to empty their holding tanks. That’s fine in theory, but how is it going to be policed? Do the brains that thought this one up really expect boat owners to line up for an hour or more at the end of a weekend or public holiday on water with dozens of others waiting to empty their tanks? (Keenan 1997d:140).

Paradoxically, despite their clearly stated intention to not use pump out facilities even in provided, boaters argued that they couldn’t comply with the legislation because the pump-out infrastructure did not yet exist. Boaters were unambiguous in their unwillingness to use shore side pump-out and questioned if those mandating the use of sewage holding tanks had “ever tried to hold, connect, disconnect and clean a live pump out sewage line!” arguing that “the health risks, smell and mess are only endurable for a large quantity of discharges and will be found unacceptable by the small, medium and recreational boat owner” (S2-1998).

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9 The petition was provided to the House by the Hon. Joan Sheldon MP, Member for Caloundra (Liberal Party of Australia) on behalf of 34 petitioners on 2 August 2001, 60 petitioners on 17 May 2001 and again on behalf of 62 petitioners on 31 October 2001 (Queensland Parliament 2001c,d,e).

10 These findings are supported by research (e.g. Strand & Gibson 1990) and anecdotal evidence which has found that even in overseas jurisdictions “where strict pollution regulations are in force” these facilities are rarely used (Hunt 2003b:19).
Recreational boaters suggested that few in their ranks would willingly “choose the risks and inconveniences of the store and shoreside pump out method of waste management if other options are available” (S76-1998) and cautioned the Government to “not presume marine owners want to find their own stations nor that sailors will happily pay to pump out, especially at the end of a weekend when the amphibious boat owners want to go home rather than jill around waiting for their turn at the pump” (A. Lucas 2004:2). Boaters argued that:

The presence of a holding tank on a boat is never pleasant and can be very distasteful. Since servicing a single boat at a marina pump-out station typically requires a minimum of five minutes, from approach to departure, the number of boats returning to a marina at the end of a busy day can result in a wait of hours before the tank can be pumped out. Often people will not wait for such service, choosing instead to leave the boat, with a full holding tank, until next weekend. A boat left with a full holding tank for any length of time will provide an overwhelming incentive to use the direct overboard discharge option in the future. The retention of waste material in the holding tank can pose a serious safety threat to a vessel and its occupants. Decomposition of waste produces inflammable gases which, under certain circumstances, can become explosive. These gases are also toxic, and can find their way into the stateroom, with harmful or even lethal results (Husick 1996:71).

Some making submissions felt that the boaters has overstated the inconvenience and potential health and safety risks associated with holding tanks and pump-out stations, noting that based on the twelve years experience of one boater, “properly installed and maintained [they] pose no greater risk (or less) than a standard toilet and certainly reduce the risk to the public at large and the environment” (S84-1998). Thus despite being framed as an issue of risk, stated concerns regarding boaters’ use of holding tanks and shore side pump-out facilities tended to be based as much on disgust and inconvenience as safety risks. Perhaps in cognisance of this, one boater suggested that what was required were “systems which operate as much as possible like a home toilet, requiring only the push of a button or the movement of a level to properly treat and responsibly dispose of the waste material” (Husick 1996:71). This idea of minimising contact with the sewage may account for the greater acceptance of the use of onboard sewage treatment systems than holding tanks by boaters because contact with sewage is minimised and there is less disruption to the normalised flush and forget discharge practices.
Recreational boaters argued that while it may have been “simple to pass laws making it an offence to discharge untreated toilet waste from small vessels” there were no “realistic alternatives” (Ayres 2003:61). This is despite the Act having been amended from permitting only the use of sewage holding tanks to include the use onboard sewage treatment systems and portable chemical toilets. While some boaters welcomed this increased flexibility others argued that “the porta-potti idea is impractical and potentially dangerous for use on sea-going yachts— they can fall over and spill…smell…[and there is] the risk of disease” (Ayres 2003:61). It was argued that it was inappropriate to expect “boaties” to take porta-pottie tanks “full of sewage off their boats, row ashore or walk up a marina, put the tanks in the boots of their cars and then dispose of the raw effluent in shore-based pumping stations—all without help or protection” (Keenan 1999a:130). One boater facetiously suggested that since boaters “can’t dispose of the waste [from a porta pottie] into the water and nor can we legally dispose of it at a public facility or at home…we are left with a growing pile of human waste presumably in the corner of the garage” (M9-2004).

**Upsetting the boating ideals of freedom, resistance and control**

A wide range of recreational boating activities are regulated to minimise any deleterious ecological, aesthetic, safety or amenity effects (Adams 1993). Regulation can include boat speed restrictions, zoning water bodies to segregate incompatible leisure activities or to restrict access into sensitive areas, prohibiting practices such as the dumping of litter, and restricting the use of certain chemicals. Given the strong behavioural and attitudinal aspects driving resistance to the regulation of recreational boating in general it is important to identify to what extent resistance to the proposed regulation may have been based on its unspeakable elements and to what extent it was based on its incursion into recreational boating space.

During the interviews I conducted with policy officers most noted that recreational boaters are generally highly resistant to any attempts to impose additional regulations on their boating practices because “on one hand I think recreational boaters want to protect the waters and make sure their activities don’t contribute to pollution or unsafe practices but again they are very passionate about their activities and don’t like being told how they should be performing” (Policy Officer 6).
In table 6.1, recreational boaters’ rejection of attempts to regulate their sewage discharges in this case study are compared to four contemporaneous research accounts of recreational boater responses to attempts to introduce a range of regulations with an environmental bias—marine zoning regulations which restrict areas of operation (Gray et al 2010); prohibitions of the use of hull anti-fouling products (Löfstedt 2001); marine waste (predominantly garbage and sewage) regulations (Baasel-Tillis & Tucker-Carver 1998); and introducing a marine reserve (MacCallum 2009)—to determine the extent of these similarities and differences and the basis for them.

The dominant themes of opposition to regulations by recreational boaters across these examples were perceptions or fears of over regulation; a mistrust of government based on perceptions of unbalanced interests and bias on the part of regulators that saw recreational boaters being unfairly targeted; the need for tighter regulation over the actions of ‘others’ instead of recreational boaters; and likely difficulties with enforcement and compliance.

In many respects, as noted by the policy officers I interviewed, the regulation of sewage from recreational vessels has produced many of the same oppositions that have been experienced in other regulatory attempts not related to sewage. This comparative analysis also shows that boaters tend to rely on a reasonably consistent set of rhetorical or claims making strategies to assert legitimacy and to externalise responsibility and blame when faced with new regulations which limit or proscribe some element of boating practice, even when excrement is not a factor.
Table 6.1: Recreational boater responses to regulatory processes

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<tbody>
<tr>
<td><strong>Primary Claim: Sewage from recreational boats does not pose an environmental of public health problem</strong></td>
<td></td>
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<tr>
<td>Recreational boating activities don’t have much of an impact</td>
<td></td>
<td></td>
<td></td>
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<td>✓</td>
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<tr>
<td>Need for tighter regulation over others, not recreational boaters</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Need for scientific basis for decisions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Secondary Claim: recreational boaters are already over regulated</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Unwarranted over-regulation of recreational boating</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mistrust of government</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Regulator/legislator bias against recreational boaters</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Lack of regulator/legislator understanding of recreational boating</td>
<td>✓</td>
<td></td>
<td></td>
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<td>✓</td>
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<tr>
<td>Unfairly targeting recreational boaters</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Perceived loss of boating access/freedom</td>
<td>✓</td>
<td></td>
<td></td>
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<td>✓</td>
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<tr>
<td>Environmental practices of boaters mitigate the need for regulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td><strong>Tertiary Claim: recreational boaters won’t comply with legislation they do not agree with</strong></td>
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<tr>
<td>Boaters will break laws they do not support</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Likely difficulties with enforcement</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Legislation is confusing or unclear</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Availability of cost effective, practical alternatives, facilities and infrastructure</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

11 It should be noted that the absence of any given claims making strategy in this analysis does not imply that it was not present in that case; simply that it was not reported in its findings.

12 In this case it was about the availability of alternatives i.e. a better way to achieve outcomes than zoning. In other cases it was a perceived lack of alternatives for boaters. However, in both instances the desired outcome was to maintain the status quo.
In much the same way that apparently contradictory discursive claims that are made on rural spaces; namely that they are narrated as being both a site of safety, orderliness and community and at the same time as a site of freedom, anti-order and non-regulation (Neal & Walters 2007:252) boaters narrate the ocean and their time on it. The recreational boat, like other heterotopic spaces, is therefore simultaneously seen as not needing external regulation and as a site of “social and cultural freedom and isolation from the tentacles of socio-legal governance” (Neal & Walters 2007:256). Thus, although seemingly incongruous, Neal & Waters (2007:252) argue that such discourses are underpinned by “a particular coherency that is driven by sense of community, belong and regulation” in much the same way that boaters’ public submissions and more private correspondences situated them as a self-regulating community that knows what needs to be done, how it should be done and who belong. Such a position associates the recreational boat with an absence from a regulating gaze and indeed these spaces are often constructed as a space “not only to ‘just get away from it all’ but more significantly to get away from the authoritative gaze” (Neal & Walters 2007:257). The Queensland boating community, much like the rural communities Neal and Walters (2007:261) studied, argued that they had the ability to regulate themselves and that “formal or juridical regulation [was] viewed here as excessive, external/outside, urban based, corrosive and non-sensical”.

Freedom is a frequent theme in discourses about leisure which “has existed at least since Aristotle wrote that leisure is freedom from the necessity to labor at menial tasks” (Hemingway 1996:27). Freedom is generally understood as a subjective experience which is based on “the degree to which individuals are able to withdraw from external influences determines the degree of freedom he/she experiences” (Hemingway 1996:29). Freedom in this sense is also construed as both the opportunity and the right to act as one pleases. Freedom in recreational boating is often expressed in the context of being able to travel at will and avoiding the trappings of everyday life through which popular myths position also nature as a form of freedom alongside a perceived lack of rules, restriction and surveillance (Johns & Clarke 2001). As such leisure is discursively constructed as much as freedom to as freedom from. These ideas combined with a prevailing view which sees leisure as individualistic and primarily directed toward
satisfying self-interest was the foundation of recreational boaters’ discourses of freedom. Indeed the very notion of the ‘freedom of the seas’ has historically included the freedom to pollute (Van Dyke 1993). However, such a view fails to recognise the opposing view held by the government, community members and environmentalists that called for the impacts of their leisure to be regulated on the basis that “some freedoms limit others” (Nussbaum 2003:33).

Berlin’s ideas of the doubled edged character of freedom is relevant to these discussions of opposing discourses on freedom in that it distinguishes between ‘negative liberty’ in which individuals or groups are left alone to do what they want without interference and ‘positive liberty’ through which “authorities coerce people in the name of justice, rationality or public health to become wiser, healthier, more virtuous than they were, in order to enable them to realise what their freedom was and to exercise it” (Rose 1999:67). For instance, the freedom of recreational boaters to pollute the marine environment is a form of negative liberty in that it necessarily limits the freedoms of others to enjoy an unpolluted environment and should therefore be subjected constrained. Indeed, “this recognition of freedom as a set of practices, devices, relations of self to self and self to others, of freedom as always practical, technical, contested, involving relations of subordination and privilege” opens it up to criticism and analysis (Rose 1999:94).

The idea of constrained freedom has been explored by Martha Nussbaum (2003:44) who suggests that “any particular freedom involves the idea of constraint: for person P is only free to do action A if other people are constrained from interfering with A”. This is what recreational boaters sought to achieve by limiting the participation of environmental and community members (indeed any non-boaters) in the policy debate. It is Nussbaum’s position that the freedom to pollute in the name of freedom should not enjoy protection because “the freedom to pollute is bad and should be constrained by law” (45).13

13 Nussbaum provides further examples of freedoms which should be restricted: the ‘right’ of a man to have intercourse with his wife without consent; and, the ‘freedom’ to sexually harass women in the workplace. Both she argues have been “a tenaciously guarded prerogative of males the world over” and to which the introduction of regulations is responded to by invoking the idea of liberty (Nussbaum 2003:45).
Legal regulation is often formulated on this view that “the constraint of the few is a condition, for the freedom of the many” and “that limited coercion is necessary to shape or reform pathological individuals so that they are willing and able to accept the rights and responsibilities of freedom” (Rose 1999:10).

Following Rose, Fullagar (2003:49) notes that how we think about and “conduct our leisure practices in the name of freedom…is, in fact, regulated by discourses that are produced through contemporary neo-liberal rationalities”. In Fullagar’s work, these discourses focus on individual’s responsibilities for reducing the risks of lifestyle diseases through active leisure through discourses about “leisure as an expression of the rational individual’s freedom and choice” (2003:50). Similarly in this case study government and community expectations that recreational boaters should minimise the environmental and other impacts of their leisure practices can be juxtaposed against a recreational boating discourse of freedom from regulation of any kind. However, just as notions of private property combined with the individual right to do as one pleases was the foundation of resistance against sanitary reform in the nineteenth century (Kearns 1988:197), these ideas resurfaced in the arguments put forward by boaters in this case study with respect to a perceived loss of boating and personal freedoms. Steinberg (2001:34) notes that the modern construction of ocean-space as a “non-territory, an untameable space that resists filling or development”. As such to the boater, the idea of mare liberum is as strong as the idea of terra nullus to the explorer. These ideas set up spaces like the boat as ungoverned, and in some senses ungovernable, by focussing on their freedom from law or occupation.

Nussbaum agrees that “in one sense feminists are indeed insisting on a restriction of liberty, on the grounds that certain liberties are inimical both to equalities and to women’s liberties and opportunities” (2003:45).

14 Such a view in analogous to Rousseau’s social contract (1767/2004) in which all citizens are free when all forfeit the same amount of freedom and the same duties and responsibilities are imposed all, such as a mandate not to cause pollution. Such a social contract requires all citizens to give up the freedom to do anything they desire for the greater good and out of a duty to consider the interests of others.

15 Even at the international convention level the regulation of vessel-sourced pollution has been steeped in conflict between those nations seeking to protect their coastal waters by adopting strict discharge controls and those nations with significant maritime interests who, like our recreational boaters, view such environmental regulation as a threat to traditional rights of innocent passage and freedom of navigation (Bodansky 1991:720).
As discussed earlier in this chapter such views are further intensified by the representation of the ocean as an Other, “unlike regular space” (Kramsch & Motzenbacker 2003:6) but in some respects this misses the point of the resistance encountered from boaters. As has been suggested is the case with cruise ship vacations, “the ship itself, not the sea not the ports, is promoted as the primary destination” (Steinberg 2001:13). So too it is with recreational boaters as opposed to other recreational ocean uses like surfers (Ward 1996). If the destination and the core is the boat or the boating experience it is likely that this aspect will be given the most prominence and important in boaters’ decisions about their waste management practices. Thus asking them to keep their sewage on boat is in some sense asking to befoul both their private space and their destination.

The excremental invasion of territory and the male boating body

As a measure of their discontent, Bob Norson, editor of The Coastal Passage, ridiculed enforcement attempts and facetiously encouraged violence against enforcement officers through satirical pieces which implied that the enforcement officers “run around here with a medical crew, swim the whole anchorage in SCUBA, looking for a piece of shit that [they] can bag for evidence” (Norson 2004b:1). Norson’s editorials also invoked images of rubber-gloved enforcement officers performing body cavity searches and taking stool samples by force. Such views reflected a general boater sentiment that that the legislation was “unworkable because it is impossible to police. If they do detect sewage in the water how can they determine who put it there?” (Fraser Coast Chronicle 2004:7). Of course the same could be said of litter or oil but these issue are never raised in this way, as if to suggest tracing sewage to its source is somehow more impossible or ludicrous.

In a visible sense, it was these ideas of the rights associated with private actions on private property combined with the individual right to do as one pleases which formed the cornerstone of their arguments. Claims are grounded in values (Best 1987:101) and these were tied up in a discourse of relinquishing “important civil rights” (Norson 2005a:1) in return for no real environmental or public health gain. The attempts to regulate sewage discharges from recreational was characterised as “yet another government imposition on our God given right to GO BOATING” (Scott 2004c:19)
Boaters’ ideas about pollution “construct boundaries and identify (real and symbolic) spatial limits that enable them to feel secure and in control of their environment” (Jewitt 2011b:762). The legislation muddied the boundaries and made boaters feel that they had somehow lost control of both their boats and their bodies as they were confronted with matter out of place. For the boaters, faeces in the water was not matter of place, but on their boat it is not just out of place but is in a space where its most horrifying and symbolically polluting characteristics are able to dominate—odour and proximity. In the ocean faeces are ambivalent, unless seen by others floating by unmacerated, however, on the vessel it is abjectly horrifying and horrifyingly abject.

Conclusion

In many respects the story of this policy process presented by both policy officers and recreational boaters was based on the idea that the recreational boaters’ dissent was founded in opposition to prescriptive holding tank installation. There seemed to be a sense, as least at the commencement of the review of the legislation, that what needed to be done was to find an alternative infrastructure solution that would be acceptable to boaters. However, there also seemed to be little consideration of assessing or understanding boater’s outright rejection of attempts to regulate their sewage discharges and the basis for these and a somewhat face-value acceptance of the boaters’ claims about the lack of scientific evidence that their discharges were causing environmental harm and about the cost and difficulty of retrofitting holding tanks on recreational vessels. However, as shown in Chapter 5, each time a compromise position seemed to have been negotiated, new issues arose that prevented recreational boaters from taking responsibility for their waste.

The analysis presented in this Chapter shows that opposition to sewage discharge restrictions by recreational boaters is part of a broader opposition to the regulation of recreational boating practices more generally. This opposition relies on a reasonably consistent set of rhetorical claims making strategies associated with perceptions or fears of over regulation; a mistrust of government based on perceptions of ignorance, unbalanced interests and bias on the part of regulators; a sense that recreational boaters
were being unfairly targeted; the need for tighter regulation over the actions of others; and likely difficulties with enforcement and compliance.

However, throughout this analysis the presence of excrement seemed to further inflame “this very difficult and emotive question” (S133-1998) of how to manage boaters’ sewage waste. While boaters were clearly incensed at the prospect of being fined “over $60,000 for having a bowel movement” (Norson 2005c:1) or for the financial burden of retrofitting their vessel with sewage treatment or holding equipment. Their objections went further as noted by Andrew Bray (2007:1) on the Australian sailing website mysailing.com.au: “There are strong reasons why boat owners ignore regulations that require them to do something the rest of humanity goes to great lengths to avoid.” It is this unspeakable element that is the focus of the next chapter.
CHAPTER SEVEN

A focus on the floaters and the unspeakable

Introduction

In Chapter 4, we observed that the desire to deny the corporeality of the body has resulted in a need to remove sewage waste from view. As a result, while in the past people had to deal with the waste on a daily basis, today few know (or, indeed, care) where their sewage goes or what happens to it after it is flushed away (Hamlin 1980:18). This loss of connection with our waste has, over time, further reinforced negative attitudes toward dealing with and speaking about excrement. This alienation from sewage production and management becomes particularly problematic when political interest in changing waste management behaviours or infrastructure occurs (Krantz 2005:6-7), and when a policy process presents a direct challenge to normalised and accepted defecatory practices. In Chapters 5 and 6, we observed that, with an almost cavalier dismissal of the views of others regarding the potential impacts to others or the environment, recreational boaters rejected attempts to manage their vessel’s sewage discharges and more importantly attempts to manage their bodies.

Following Patton’s (2007:10) observation, “it is insufficient to deplore such practices [instead] a thorough exegesis of the inner logic at work is an important preliminary component to change”. In this chapter, I seek to understand what happens when strong emotions are forced to be displaced by rational claims in policy processes dealing with unspeakable problems.
Seeking out silences and looking below the surface

Perceptions of marine pollution problems can have a strong influence on the agenda-setting process, and determine which issues come to the attention of both the public and policy makers. The circularity of this argument shows that such processes are not simply dispassionate scientifically and technically evidence-based, but are very much driven by and influence perception and emotion (Birkland & Lawrence 2002:22). Other than recreational boaters, who had a vested interest, comparatively few members of the broader community got involved in the policy-making process. This was despite a concerted effort by the state to promote the process through newspaper advertisements, position papers, media releases and public workshops. One explanation might be either that, as the boaters suggested, the broader community did not perceive sewage from boats as a significant environmental, public health or amenity issue, or alternatively, aligning with the policy-makers position, that the legislation was agreeable to them and not a perceived threat. However, I challenge this understanding. I suggest that there are more fundamental reasons why the public did not become involved and why the boaters themselves were so resistant to the legislation. In many ways within the responses of both boaters and non-boaters, dissent or support for the legislation was less about the alleged environmental or public health consequences of sewage disposal, and more about the emotional and psychosocial elements.

Although the claims-making strategies of recreational boaters identified in Chapter 6 were sometimes presented in emotional language, these claims were presented and understood as legitimate, rational concerns. This is evidenced by their internal consistency within the policy process, regardless of genre, and their external consistency with the claims-making strategies adopted in other policy processes regulating the behaviours of recreational boaters. Within a policy context, these could therefore be considered to be explicit, visible and overt claims. However, I do not believe that they tell the entire policy story.
The metaphor of waterlines as a liminal threshold can serve as a useful metaphor to understand policy processes dealing with unspeakable problems\(^1\) (figure 7.1).

**Figure 7.1: My conception of policy contributions**

In policy terms, that which is above the waterline is explicit, spoken and speakable; collectively, it is a recognised and rational contribution to the policy process even if presented in an overtly emotional way. It is what we notice about and take notice of in the policy process. These are the contributions that are analysed by policymakers and analysts; they command a legitimate and visible place in the policy process. However, the unspeakable elements of the policy problem, the largest and arguably most rhetorically powerful parts, remain unseen below the surface. These elements, below the waterline, comprise the hidden assumptions, understandings, values, judgments and emotions that support the rational policy contributions. But they are also those parts of the policy problem that we know but do not or cannot articulate; they remain unspeakable, unspoken and largely unconscious.

\(^1\) Although used in a different context I borrow the idea of a waterline as a liminal threshold from Bickel (2006:88) who uses the idea in her autoethnographic art; “my body is my waterline, a point of conscious awareness”. Another suitable, although considerably less evocative, metaphor is the concept of above and below the green line based on the work of Meg Wheatley which makes a distinction between the rational elements of the organisation such as systems, structures and processes which she positions above the line and the non-rational elements positioned below the line such as emotions, information and relationships (Murray, Poole & Jones 2006:394). The use of Wheatley’s model was popular with organisational change and leadership consultants in the Queensland public sector in the late 1990s and early 2000s (Brown, Waterhouse & Flynn 2003).
This metaphor of policy making input does not dispute the tremendous influence of what happens above the waterline; indeed it recognises that this is generally the only part that is considered as part of a rational, evidence-based policy process. However, it does suggest that we cannot ignore or underestimate the influence of the invisible part of policy making which shows itself in only glimpses—our view distorted by the water above.

Given that that policy process under study is ostensibly about pollution, in this Chapter I consider what the pollution claims made by recreational boaters look like and how they are rationally expressed (using this metaphor they would be considered to be above the water line) but also consider what they might connote or mean because “what moves below the surface is…the subtext which triggers us to read more and search carefully for the small traces and symbols that reveal even more of the meaning” (Schøtt-Kristensen et al:3). Indeed, there are a whole series of problems surrounding shit and shitting—“the problem of action, of behaviour; the problem of symbols, of words, the problem of relations between the sexes…the problem of dealing with new situations” (Bates 1969:9) that only exist to extend this metaphor below the waterline.

As shown in figure 7.2, attitudinal constructs have an affective, a cognitive and a conative component (Cottrell 2003:351). Thus, a person's attitudes toward an object like excrement is a combined function of their belief regarding the object's attributes and how they feel about it, or conversely, how it makes them feel. A personal evaluation of these attributes and the emotions and socio-cultural mindsets that men bring to the aquatic leisure environment (Moran 2011:261) are therefore likely to have a strong impact on the sewage discharge behaviours that can be observed. Indeed, it has been observed that relying on providing information and other soft compliance measures to ensure compliance with sewage discharge laws is likely to experience limited success when boaters “have values that encourage undesired behaviour”, and the social group and norms of boaters are stronger than any other source information presented in education campaigns (Wester & Eklund 2011:78). As such, it is important to consider how the problem of sewage discharges is framed, and the impact of attitudes about human faeces on this framing and on subsequent action. Sewage discharges from vessels
are broadly understood as pollution in both the observed legislative and boater discourses, but is not framed the same way.

Focussing on environmental claims as an example

Focussing on boaters’ claims of environmental concern and professed environmentally responsible boating practices we can begin to see the problems with accepting a stated position as unproblematic. Boaters’ attitudes about the potentially negative impacts of boaters’ disposal practices and knowledge of the laws regarding disposal (and, most probably related to this, the likelihood of being the subject of enforcement) can be expected to have some impact on recreational boaters’ disposal practice, many boaters admit to engaging in illegal disposal (e.g. Cottrell & Graefe 1997).
Despite their strong environmental rhetoric, the analysis presented in Chapter 6 suggests that boaters’ claims of environmental responsibility were subordinate to matters of convenience. Indeed, the analysis suggests that issues such as the cost and convenience of various sewage disposal practices are likely to be as, if not more, influential in determining boaters’ disposal practices than environmental awareness or the more general pro-environmental behaviours, such as recycling, that the boaters might engage in. It could also be suggested that much of the justifying, blaming and denying presented in the preceding chapter is likely to have been, at least subconsciously, motivated by a desire to avoid the cognitive dissonance and discomfort of conflicting ideas and actions, to restore credibility and to attempt to avoid the social costs of their actions (Tedeschi, Schlenker & Bonoma 1971). Certainly, blaming others for marine sewage pollution and taking no personal responsibility for it, either as individuals or a group, may have allowed them to “preserve a way of life to which [they] have grown accustomed and one that [they] are reluctant to change—the way of life that generates pollution in the first place” (Bobetz 1995:715).

If boaters do not perceive that they are creating or significantly contributing to marine pollution through their sewage discharges, they will not be motivated to change their behaviours and will be resentful of attempts to forcibly change them. The view that recreational boaters are not as responsible as other actors for any environmental impacts makes compliance with any regulations advanced even more difficult to achieve. Wester & Eklund (2011:77) note that:

…leisure boats are seen to have the least impact on the marine environment, at the same time as the individual boat owner is seen as responsible for possible environmental damage caused by boats. This might illustrate an interesting attitude from an environmental standpoint: of course boat owners are willing to accept responsibility for and deal with possible negative consequences of their actions—something that is very easy since their activities are not seen as causing any problems.

This is why claiming to behave in an environmentally responsible manner might seem to be a compelling claim by boaters for self-regulation, or no regulation, of their activities, but it turns out to be a false premise when considered alongside their claims that the discharge of sewage from recreational boats has no negative impact on the environment.
The recreational boaters’ argument can be simply understood as a reflection of the idea that if their boating practices could be proved to be causing an environmental problem they would stop them, but because it cannot be proven to their satisfaction, they do not need to change their disposal practices and thus legislation to force changes in disposal practices is unnecessary. Publicly, recreational boaters simply reject the idea that they are polluters, that their sewage discharges constitute pollution or that the marine environment is polluted as a result. The recreational boaters appear to appropriate a discourse of environmentalism whilst at the same time reducing the horizons of this discourse to one which fundamentally sees the marine environment and non-urban waterscape as a place in which to take one’s leisure and little more. Indeed the boaters seem to have a point when the say that their waste is insignificant in comparison to other more environmentally damaging human practices but this does not explain the differences in the way that they make their pollution claims and justify their continued disposal practices. There are a complex series of emotional and unspoken things going on which result in the linear understanding of environmental knowledge driving environmental awareness and subsequent action as being fundamentally flawed (Cottrell 2003:349) because it overemphasises the influence of environmental knowledge on behaviours and underemphasises the influence of attitudes.

The contextual nature of pollution means that there are places where we allow some substances and other places where we do not (Nagle 2009:78); pollution beliefs force us to ask not only what belongs where but also who belongs where. As such, the central aspect of any pollution claims (and arguments against them) is that there must be a pollutant, a polluter and a place to be polluted. Simply, pollution is about something being polluting and out of place; a place becomes polluted. Rather than accepting pollution claims (or anti-pollution claims as the boaters expressed) as a purely technical or scientific argument Douglas and Wildavsky, Nagle (2009) suggest that the following questions should guide analysis of pollution claims: What is being judged as polluting?; Who is accused of causing the pollution?; Who are the victims of pollution?; and How can the pollution be removed? As shown in figure 7.3, through such questions we can

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This is a self-evident consideration. We unreflectingly but reflexively refer to air pollution or water pollution to place pollution in a spatial context.
identify that recreational boaters and non-boaters (policy makers, the public and environmental groups) construct the issue of vessel sourced pollution quite differently.

![Figure 7.3: Interrogating pollution claims](image)

The idea of vessel-sourced sewage pollution advanced by the non-boaters’ perspective relies on a view of faeces in the marine environment as polluting. Thus, the legislation frames recreational boaters as polluters and their sewage discharges as polluting from a public health, environmental and aesthetic perspective—the victims of pollution consequently being the marine environment and the public at large. The resultant policy position is to then expect boaters to manage their own faeces onboard their vessels prior to shore-based discharge into approved disposal points, such as sewage pump-out facilities or portable toilet dumping stations.

By contrast, the recreational boaters construct their sewage discharge as harmless in contrast to the pollution caused by being forced to retain the sewage onboard their vessel, causing the vessel to become a polluted space. As such, the boaters perceive the government and environmental allies as responsible for causing this unwanted pollution, the solution to which being unrestricted dumping of sewage from recreational boats into the marine environment. For the boaters faeces in the ocean were not out of place,
instead it was onboard the boat that its most horrifying characteristics were played out. In the ocean excrement is ambivalent, unless it is seen floating by in its unmacerated state, however, on the vessel they were abjectly horrifying and horrifyingly abject as shown in the quotes below:

*This is totally unhealthy, unhygienic and to have holding tanks on board is disgusting...Holding tanks are a health risk, filthy, disgusting and will not work and leaving hoses pose health problems—pump stations with the vile job it will be—can only cause excess monetary bikes* (S69-1998).

*The great majority of otherwise law-abiding citizens simply fail to use dockside pump-outs no matter how many they build or how hard they try to ‘educate’ or enforce. Apart from an aversion to handling waste hoses (and paying for the privilege in some places) and the time taken to get to and to use them, the process and associated gagging reactions are the antithesis of a pleasant day on the water.* (Bray 2007:2)

When defending their disposal practices, the recreational boaters might agree with Isaksen’s (2002a:802) observation that “fantasies of bodily dirt might have a greater impact on people’s social life than the concrete experiences of bodily dirt and waste products”. However, their responses to being forced to manage their sewage waste onboard their vessel both contradict and reinforces the truth of this statement. Recreational boaters admit that:

*...the issue of sewage disposal from small craft...is an emotional issue and one clouded by misconceptions. Amongst people who haven’t thought about the issue very much it’s easy to stir up the response “I want to keep our waterways clean so of course boats should not be allowed to pump raw sewage into the waterways. They should fit holding tanks and keep their sewage on boat until they come alongside and pump it out into the municipal sewerage system.” Sounds logical – or does it?* (RQYS 1997:1).

This is a fundamental and important difference in how sewage is physically, spatially, symbolically, materially and practically understood as pollution by the boaters and non-boaters. Both consider issues of the health risk caused by exposure to sewage but contradict each other. According to the legislation, boaters should be compelled to handle and be exposed to their own faeces and that of their passengers, but the public should not be exposed to boaters’ sewage because it is dangerous. Boaters present an opposing view which perceives the major risk to be from handling or being exposed to the faeces in a holding tank but that, when released into the environment, their faeces
poses a minimal health risk. However, disgust is central to both understandings and features heavily in debates of pollution, polluters and matter out of place.

Pollution: vessel sourced sewage as matter out of place

The idea of regulating the discharge of sewage from ships in Queensland was highly controversial, particularly with respect to plans for recreational vessels, because it directed public and regulatory attention to the sewage disposal practices of the recreational boating fraternity, who were put in the position of having to justify what was once an accepted, or at least ignored, common boating practice. If letters to the editor and unsolicited letters to members of parliament are any guide to the general public’s views on sewage discharges from recreational boats, most are incredulous that such practices occurred. In many instances it is simply something that they have never thought about until the issue is raised in a public debate or they personally encounter the after effects of these practices when swimming (M10-2004), walking their dog (M2-2001) or renting a houseboat (M1-1998). Once this encounter or engagement has taken place, this response is often followed by one of disgust which quickly turns to outrage at what is seen to be wanton and indiscriminate acts of environmental vandalism or otherwise selfish behaviour. If we consider the writings on disgust, this not surprising and in fact should be expected given the taboo nature of sewage. What is most interesting, however, is the way that recreational boaters responded to these claims and attempted to justify their discharge behaviours and resistance to regulation. Their predicament, to dump or not to dump, provides us with an interesting paradox to explore, despite the “horified” view of many “that it is absolutely unacceptable, I just can’t imagine anybody even doing it” (Royes 2010:1)

The loss of connection with our waste has, overtime, further reinforced negative attitudes toward dealing with and speaking about excrement. The part of the system that we see, the toilet, has remained relatively unchanged for more than a century and user practices have become routinised—at the intimate personal level, waste disposal is

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1 I have certainly found this to be the case when I have presented my research at conferences or even in the course of general conversations about my research at social functions and the like.
carried out the same way on land and on the water. However, they differ significantly at the general level of disposal.

On land, specialist organisations have been given full responsibility for managing the waste and its impacts. The on-land sewer system is hidden, automatic, taken for granted. On land (and until very recently on the water), we have physically and morally separated ourselves from both our bodily waste and our responsibility for it simply by pushing a button. Flushing our waste away without a second thought has become routine and performed without reflection; perceived as being both normal and necessary. Through this act the waste becomes invisible, and conceptually no longer exists – it’s just gone. But everything has to go somewhere. It becomes part of an effluent stream, to which every household contributes, and for which no individual is any longer responsible. Land-based sewage treatment plants and sewer systems make sewage a collective issue, as it makes shit anonymous and transforms it from shit into effluent. Once all the waste gets mixed together and starts moving through a system (sewer and bureaucratic) we sever the connection between the act of defecating, the waste it produces and the disposal and subsequent management of the waste and our individual responsibility for any of it; a brown mob mentality. It becomes a public problem and the management of it, in the public interest, is a task for government that, through the sewer system, efficiently whisks the waste away. Hawkins (2004:2) explains that in order for something to become a public problem rather than the problem of an individual “a necessary generalisation and abstraction takes place” which involves “the active suspension of selfhood, the denial of any particular bodies with their messy biological processes…In other words, publics don’t shit”.

Regulating the disposal of sewage does not merely take responsibility away from the individual; one can self-affirmingly believe that they are doing the right thing or the environmentally responsible thing so long as they are obeying the law and engaging in normalised behaviours. The corollary of this is that when something goes wrong, as it did at Australia’s iconic Bondi beach in the 1980s, it becomes an infrastructure problem, the fault of the government of the day. This is in stark contrast to the situation considered in the case study, where individual boat owners were expected to store and
manage their own waste as an individual problem. In this instance there is no accumulation of shared irresponsibility—the responsibility is clearly defined; the polluter named and identified; their actions revealed.

Onboard a boat, the toilet essentially looks the same and for the user operates in much the same way as those on land (image 7.1). However, the legislation created an unwelcomed transparency in boaters’ sewage waste management practices, signalling that they could not be identical to those on land despite their outward similarities at the user end. The sewage provisions of the legislation meant that the waste disposal practices onboard a boat could no longer be taken for granted; instead its management had to become intimate, immediate and conscious. Boaters were being asked to retain their waste onboard before physically pumping it out at a pump-out station or carrying a full porta-pottie ashore. The boaters’ reluctance to remain proximate to their waste, in physical or psychological terms through the retention of their sewage onboard, was clear and based on a number of sensory-emotional factors including smell and disgust⁴.

Of all the sewage management options available to recreational boaters, the direct flow through marine toilet is the closest to the flush-and-forget system used on land. Building on Rosenquist’s (2005) work on the acceptance of dry sanitation⁵ and Inglis’ elements of

⁴ On large vessels such as passenger cruise ships there is also a general reluctance for crew to engage in waste handling activities such as those related with sewage management (Shipping World & Shipbuilder 1993:22).

⁵ Rosenquist’s (2005) work is influenced by an exploration of human desires as understood through Maslow’s hierarchy of needs. She believes that one of the key challenges to understanding resistance to these dry ecological systems is an understanding of the needs that the current water-based systems fulfil.
the mode of excretion discussion in Chapter 4, table 7.1 shows that all other options require some kind of intervention, knowledge, action and consciousness of waste where, when and how.

As Fam (2008:594) notes “the adoption of alternative technologies that require a divergence from conventional practices is not just about *buying* and *installing* them but also integrating them in *practice*. The proliferation of the flush toilet brought with it standardised routines and practices (Fam 2008; Shove 2003a,b) which are now deeply embedded not just in habits of use but also in habits of disposal. However, the use of a holding tank and sewage pump-out facilities requires a significant behavioural change on the part of boat owners “from passive to active involvement in use and management” (Fam 2008:597). This is further compounded by the fact that the look and feel of the land-based flush toilet is replicated on board a vessel. This requires them to unlearn their land based practice of flush-and-forget and to engage with the waste. This kind of socio-technical transition requires a certain amount of social learning and is more likely to be successful among individuals and communities “with intrinsic values about the technology” rather than those who do not value the technology, do not see the need for a change in sanitary practices and feel that such a change is an imposition (Fam 2008:597).

Perhaps there is some truth in the boaters’ claims that their sewage disposal practices were being called out and interrogated in a way that land-based practices are not. “The prevailing view on sanitation, illustrated by the systems currently in use (flush-and-discharge and drop-and-store) can be pictured as a straight-line starting at the point of defecation and ending by simply discharging the matter” (Rosenquist 2005:337). What the policy process did was to break this line and to put the boater in the space between. Like the Victorian protests against mandatory sewer connection, the mandatory installation of holding tanks also mandated an involuntary connection to each other (i.e. other people onboard the boat) through shared waste in a holding tank. The anonymous character is of combined shit as occurs in the sewer is reassuring; the holding tank does not provide this anonymity. Edensor (2005:317) characterises waste as being in a state of unfinished disposal somewhere “in between creation and disposal”, similarly a holding tank occupies this uncomfortable in between space.
Table 7.1: Comparison of terrestrial and marine sanitation systems

<table>
<thead>
<tr>
<th></th>
<th>conventional land-based toilet &amp; sewer</th>
<th>marine toilet with direct flow through</th>
<th>marine toilet &amp; holding tank only</th>
<th>marine toilet &amp; treatment system</th>
<th>portable chemical toilet</th>
</tr>
</thead>
<tbody>
<tr>
<td>close contact with excrement when using system</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>moderate due to proximity of waste holding chamber</td>
</tr>
<tr>
<td>excrement handling required for disposal</td>
<td>no handling required</td>
<td>no handling required</td>
<td>yes onshore pump-out likely to be required</td>
<td>no, onshore disposal of waste in removable holding chamber</td>
<td></td>
</tr>
<tr>
<td>close contact with excrement when disposing of waste</td>
<td>no handling required</td>
<td>no handling required</td>
<td>yes connection of pump to outlet valve</td>
<td>no handling required</td>
<td>yes physical handling of removable holding chamber</td>
</tr>
<tr>
<td>sight of excrement</td>
<td>possible during use</td>
<td>possible during use</td>
<td>possible during use</td>
<td>possible during use</td>
<td>possible during use</td>
</tr>
<tr>
<td></td>
<td>unlikely during disposal</td>
<td>possible during disposal – floating faeces and paper or stain from macerated faeces</td>
<td>possible during disposal</td>
<td>possible during use</td>
<td>very likely during disposal</td>
</tr>
<tr>
<td>smell of excrement</td>
<td>limited to post use odour which dissipates quickly</td>
<td>limited to post use odour which dissipates quickly</td>
<td>moderate – may be some odour of faeces from tank</td>
<td>unlikely – limited to post use odour which dissipates quickly</td>
<td>moderate – may be some odour of faeces from holding chamber</td>
</tr>
<tr>
<td>cleaning required</td>
<td>limited restricted to residue on bowl surface after flush</td>
<td>limited restricted to residue on bowl surface after flush</td>
<td>moderate holding tank may require rinsing</td>
<td>limited restricted to residue on bowl surface after flush</td>
<td>high cassette will require rinsing</td>
</tr>
<tr>
<td>privacy when using</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes, though may be limited</td>
<td>Yes</td>
</tr>
<tr>
<td>privacy in terms of not being in contact with another’s excrement</td>
<td>yes is flushed away directly</td>
<td>yes is flushed away directly</td>
<td>no can be perceived through sight, smell and feeling</td>
<td>limited is flushed directly for treatment - treated waste may be held on board until discharge</td>
<td>No can be perceived through sight, smell and feeling</td>
</tr>
<tr>
<td>privacy when disposing of excrement (intimate)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>privacy when disposing of excrement (general)</td>
<td>yes, becomes part of public waste stream in sewers</td>
<td>yes, discharged into the ocean but possible to view around vessel</td>
<td>no, pump-out is done at public stations</td>
<td>yes, treated sewage is quickly assimilated into receiving waters</td>
<td>no, dumping is done at public dumping stations</td>
</tr>
<tr>
<td>ability to ignore the excrement after disposal i.e. deny its presence</td>
<td>very high</td>
<td>very high</td>
<td>low – knowledge and correct usage and disposal is important</td>
<td>moderate</td>
<td>low – knowledge and correct usage and disposal is important</td>
</tr>
<tr>
<td>level of input required in disposal</td>
<td>none</td>
<td>None</td>
<td>high – periodic pump-out is required</td>
<td>moderate</td>
<td>high – regular dumping is required</td>
</tr>
</tbody>
</table>
In contrast to their law-abiding and unquestioning land-based defecatory behaviour, recreational boat owners publicly stated their antagonism to the prevailing belief that the state had the right to regulate vessel-sourced sewage discharges, and many refused to answer questions about their sewage discharge practices in successive Queensland Recreational Boating Surveys.

The 2006 *Queensland Recreational Boating Survey* (MSQ 2007) suggested that efforts to change the sewage disposal behaviours of recreational boaters had been largely unsuccessful despite the push to influence polluting behaviours using social coercion induced by social norms (Haab & McConnell 2002) reinforced by the yuck factor of dumping sewage waste. This survey revealed a strong and persistent unwillingness to answer questions relating to current sewage management practices and their intention (or otherwise) to manage sewage waste in accordance with the law.

While most respondents to this survey claimed to be aware of the sewage legislation, most appeared reluctant to answer questions about sewage disposal with the majority of respondents (81%) providing no response to the relevant questions and making no comment/response regarding its application in terms of their likelihood to use onshore sewage disposal facilities if provided (MSQ 2007:25). The majority of survey respondents also refused to engage with questions about their sewage management practices and only one-fifth (19%) even confirmed that they generated sewage onboard their vessel (MSQ 2007:24). However, given that the overwhelming proportion of trips (95%) was reported to longer than three hours in duration it was “suspected that many respondents may not have answered [even this question] accurately” (MSQ 2007:24).

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6 I imagine that few defecated openly in their gardens or argued that their houses should not be connected to sewer systems. In fact I would go so far as to guess that the state and local government management of their land-based sewage disposal practices rarely crossed their minds.

7 Social coercion occurs when individual behaviour appears to violate common accepted restraints and practices and is externally sanctioned, by other water users for example. Social norms can also modify behaviours due to an internal sanction based on morally correct or acceptable behaviour (Haab & McConnell 2002).

8 This refusal to engage with questions about vessel sewage management is not atypical. A boater survey conducted in the US state of Pennsylvania interested in determining how boaters were “disposing of boater party human waste in the course of boating activities” found that the average non-response rate to survey questions about boater waste discharge behaviour was 18%, a rate significantly greater than the average 1-2%
The construction of human waste as a risk or something to be managed is not a new phenomenon. As discussed in Chapter 3, the idea of state responsibility for the management of land-based sewage waste is widely accepted, as evidenced by the almost universal use of flush toilets connected to sewer systems. However, this is not the case with ship-sourced sewage and the belated state intervention is rather more obvious. So rather than removing people’s wastes cleanly, efficiently and effortlessly, in the case of ship-sourced sewage, the State is seen as interfering and making boat owners take a personal responsibility for their waste in a way that those on land are not required to do. In effect, the regulation serves to makes the boaters’ waste very real, visible and odoriferous and its management an unwelcome imposition, as current practice (of which most people, I would wager, were unaware) is to simply dump sewage straight to sea, by some unadulterated and others macerated. It made the management of a very private act a very public issue.

We feel “discomfort with the remainders of (the residues of) [our] corporeality” such as excrement that will not flush (Longhurst 2001:6), the waste in the holding tank or, in the case of the Bondi protesters, excrement that is flushed but re-encountered in the ocean. It was this very immediacy of the waste-maker to the waste and the ability to identify the individual that produced each floating faeces or stored stool that makes talking about excrement uncomfortable, because it is directly about the faeces rather than some abstract environmental, legislative or public health concept. Similarly, in the case under study, this proximity of the boater to the floater gives the excrement an identity that it loses in the sewer—the anonymous turd—and this is likely to have made people and policy-makers unconsciously uncomfortable.

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9 Or at the very least to septic tanks in more rural settings.

for other survey questions (Shafer & Yoon 1998:99). However, the researchers note that that this low response rate was not unexpected considering the sensitivity of some of the questions asked and the unwillingness of boaters to admit that they illegally dispose of waste overboard (1998:103). However, an alternative, though complementary, reading of unwillingness to answer could be aligned with Chun’s (2002:165) observations that many respondents in surveys used to develop marketing strategies to sell toilets were hostile to answering questions about the toilet and their toileting habits due to cultural and religious taboos.
The (masculine) imagination of disgust applies the attributes of female sex and old age with the disgusting (Menninghaus 2003:7) but this does not explain why boaters who were happy to stick their hands in the muck, blood and guts of burly were so uncomfortable with the idea of storing and handling sewage onboard a vessel. Perhaps it is simply because “defecation and urination are rarely perceived as belonging together with social interaction” (Rosenquist 2005:340). As one boater noted “Would you like a septic tank in your lounge room? This is what your sewage legislation for boats has forced upon my wife and I!” (M2-2005).

Boating is a social and recreational activity, so tying it with shit is difficult. Making the boat owners keep their sewage on board the “excessive physical and emotional intimacy of the boat” (Laurier 1999:205) disturbs this order. Bickerstaff and Walker (2003:50) note that olfactory evidence and the experience of physiological and psychic effects are important elements in determining what is considered pollution. Through the odours that escape from the holding tank and the sound of the waste sloshing about below decks the shit announces itself as the object of unfinished disposal. Like a ghost, the shit haunts the vessel through its material presence—not gone and not forgotten—lurking below the surface, a reminder of what (and who) has gone before. Weinberg and Williams (2005:321) note “the closer the distance between the person and his or her fecal output, the greater the blow to self presentation, and the greater the stigma”. From its pungent odour to constantly hearing the slopping of waste as the boat rolls on the tides, this “malodorous shipmate” (Bray 2007:2) becomes a constant reminder of one’s body, one’s corporeality, one’s waste.

The polluter as pollution and the problem of representing the boater as floater
Bobetz (1995:715) suggests while that environmental legislation is more likely to emerge from policy processes when the problem it seeks to control “is readily symbolized by an identifiable object, entity or person”, this pattern is problematic because those identified as being responsible, in this instance recreational boaters, “often bear an incomplete or
distorted relationship to the actual problem at hand” (Bobetz 1995:718). Environmentally-biased policy processes, like the one under study, “establish clear lines between the perpetrators and the victims, maintaining our position safety on the side of the innocent by treating pollution...as an aberration from a norm of cleanliness” (Bobetz 1995:715). Indeed, “once identified as the culprit of an environmental problem, this blame-holder comes to symbolise and embody the problem itself” (Bobetz 1995:716). Modan (2002:489) notes that threats to moral and spatial order are often deemed out of place. A strategy adopted to mitigate such threats is to marginalise (i.e. render out of place) the people seen to pose threats, and one way of doing this is through characterising them in terms of filth. Boat owners characterised non-boat owners, especially environmentalists and government officers, as being out of place and an illogical part of consultative efforts. It became a battle of the grotty yachty against the filthy tree hugger. The shit metaphorically becomes the shit.

Nowhere is this more evident than the toilet bowl images employed to promote TOMPA’s sewage provisions (image 7.2). At face level the image shows a boat floating in a toilet. The conclusion to be drawn from this is that the boaters are turning our waterways into a toilet, a sentiment that was present in the debate: “Rich boaties are using the Coast’s waterways as their own personal toilets, dumping raw sewage” (Donaghey 2009:13). However, there are a number of other important features relating to this image.

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10 Focus groups conducted by Colmar Brunton (2006:3) on behalf of MSQ regarding marine pollution education campaigns suggested that recreational boaters prefer to see “a direct link between the offending human behaviour and the environmental consequence”. However, in line with the claims made in Chapter 6 these focus groups expressed concerns that recreational boaters were often unfairly singled out as perpetrators of marine pollution in such materials feeding into the perception that it is “always someone else” who is responsible for damaging the environment (Colmar Brunton 2006:5). It was suggested that materials should reinforce that we are all responsible for marine pollution and that there are practical measures we can all take to minimise harm to the marine environment.
The most prominent feature is the artificial blue of the toilet water. Such a colour is used in toilet cleansers to demonstrate their cleanliness and freedom from any traces of human excrement; a yellow tinge might suggest urine, a brownish tinge faeces. Next we note the vessel and its inhabitants floating in the toilet bowl. As such it can simultaneously be read as the boaters as being shit because they are floating in the toilet. But not all boaters are treated equally in this tale. The male boater is shown sporting a phallic fishing rod as he engages in a traditionally male past-time from the decks of the boat. The lithe yet strangely out-of-scale woman passenger is shown diving into the toilet waters – a pantomime scene that almost begs the viewer to cry out “No!”. From this, we conclude that boating men engage in on-water recreation positioned above and separated to the polluted waters. We also observe the exposed flesh of the woman as she dives into the water becoming one with the polluted waters or perhaps even adding to the pollution. But unless we think about it, we tend not to notice because it seems natural.

In the legislation, recreational boats, or more specifically recreational boaters, were constructed as the cause of pollution. This idea of the incontinent vessel that pollutes because of its length rather than the number of boaters (bodies) onboard can be understood as a writing-out of the body. This treats sewage pollution as though it is created by the vessel, just as a puncture in its hull might create oil pollution, or that way that oily mixtures might flow from the bilge. Ballast is expelled, foreign matter moved, transported and replaced somewhere else. But this ballast is not the contents of the
holding tank—it is simply water. It is for this reason that, despite the state’s best efforts, sewage could not simply be treated like the other pollutants in TOMPA. Rather than something that is carried on or consumed by the ship, sewage is produced by the bodies onboard. Oil might share many of the visual characteristics of shit—viscous, slimy, clingy, cloying, dark and slippery—but it is not the same. The insidious brown slick of an oil spill does not evoke the same degree of visceral revulsion as the thought of swimming in water with sewage in it. Oil once had a productive function on board the vessel, sewage never did. The policy officers interviewed confirmed that asking boaters to keep their oily bilge water onboard did not provoke dissent in the way that asking them to keep their sewage onboard did. Due to the disgust that it evokes, sewage is different to the other pollutants considered in TOMPA because it is not about boats - it is about boaters and their leaky bodies. Thus, rather than being about the incontinent vessels, it is unambiguously about boaters and their shit. In the beginning TOMPA was very much about regulating the space of the boat and not the bodies on board. But changes to the Act saw a significant shift from this notion of the incontinent vessel to recognition of and focus on boaters with bowels.

**Deflecting the scatological gaze**

Boaters, like voters, “are more sensitive to what has been done to them than what has been done for them” and more sensitive to losses than gains (Weaver 1986:373, emphasis in original). In the policy process, sublimated psychosocial matters emerged because there was no room for such concerns in the rational policy process which pushed boaters and their bodies to one side. Boaters responded with a vitriolic and defensive deflection of responsibility.

Lipsky (2010:xiii) notes that policy conflict is not only expressed as the contention of interest groups in policy-making; but is also located in the struggles between enforcement officers and citizens who challenge the implementation of policies at the local level. The enforcement officer is the creator of regulation-rules in practice, attempting to manage the boundaries between their regulatory agency and the boater being regulated. However, it should also be noted that those being regulated are not necessarily voluntary or even cooperative participants in compliance activities. In what
becomes a socially negotiated encounter, the recreational boater and enforcement officer “position themselves partially and politically” (Fineman 1998:954). As a result, the enforcement encounter is shaped by the participating actors and their conceptions of environmental damage and responsibility for taking action (Fineman 1998:954). A range of cultural dimensions need to be taken into account when considering the implementation of environmental regulations including: the environmental disposition of enforcement officers; whether enforcement officers accept the policy and the role of government in regulating it as legitimate; the perceptions of the enforcement officers regarding their specific enforcement tasks and role; and, whether or not the enforcement officers perceive that the policy is accepted by others and the level of outside support or opposition they expect in undertaking their enforcement role (Khator, Ng & Chan 1992:388).

Enforcement of TOMPA’s sewage provisions is primarily provided through regional service delivery within Maritime Safety Queensland and by the agency’s external enforcement partners—the Queensland Water Police and the Queensland Boating and Fisheries Patrol. Boaters were not the only ones to react negatively to the policy and to the forced engagement with excrement. Those tasked with enforcing the sewage legislation reacted negatively to being tasked with enforcing this legislation relative to their other enforcement duties.

There was a general reluctance among some enforcement officers to enforcing the regulation. They argued that enforcing the sewage provisions of TOMPA were outside the appropriate range of their duties, though it should be noted that similar complaints had not been made regarding the enforcement of TOMPA’s oil or garbage provisions for example. In short being branded as “poo police” was not something they had “signed on for” (Policy Officer 1).

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It should be noted that the concept of the poo police was not always negatively applied. In fact those in favour of the sewage regulations and their strict enforcement used the term in a positive way: “The anti-dumping laws have merit. But we urgently need a Poo Patrol to stop the bay becoming a sewer” (Courier-Mail 2005:26).
This notion of enforcement officers as the poo police was popularised in boating publications such as *The Coastal Passage* which featured lampooning articles and cartoons with the same theme (image 7.3), such as *The poo police of the Whitsundays* (Norson 2004b) and *Poo police patrol our passages* (Crawford 2004). It was used to demean the enforcement officers.

Image 7.3: The poo police (The Coastal Passage 2004b:6) © The Coastal Passage, used with permission

The idea of “water poo police” also appeared in the mainstream press (Bates 2004:5) in a hyperbolic way to underscore the intrusion that the legislation represented to boaters:

> I had heard tales of the ‘dreaded toilet police’ who have unrestricted power to board and inspect a vessel suspected of not being fitted with a holding tank. Frankly after listening to these horror stories I did consider limiting my cruise to the Tweed River, as interstate and international vessels are particularly vulnerable to such indignities (Moorhouse 2004:1).

This idea of the poo police was also advanced in parliamentary debate when Chris Foley (2004:1443-1444), the outspoken independent member for the seat of Maryborough, stated: “My constituents are terrified of the prospect of the ‘Poo Police’ being able to board their boats without a warrant, which is technically a vehicle but is actually their home, and fine them up to $63,000 for breaching a law that is impossible to comply with”.

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12 Interestingly, the second article listed was allegedly written by a police prosecutor.
The ideal-type bureaucrat is assumed to have a male body and to behave and experience relationships from a man’s perspective (whatever this means) (Bennett in McKie & Watson 2000:xxii). However, the majority of those involved in the development of the policy, at least in the period 1997-2000, were women. The women policy officers interviewed suggest that this may have somehow made it worse for the boaters; it was as though these women could know nothing of what it meant to be a boater (that is, a man). In later stages, although the majority of those tasked with further refining and implementing TOMPA’s sewage provisions were men, many of the policy officers involved, be they man or woman, had environmental credentials of some kind.¹³ As such they were reducing to being pejoratively labelled as “toilets-on-boats researchers” and “government boffins” (Keenan 2000:99), and the predominantly male fleet of enforcement officers, poo police, charged with enforcing the marine sewage laws were reduced to the low status of women:

They have no penis…Deadly serious, and sad, but true…there isn’t a penis among them…Penis envy is a powerful motivating force causing a number of disorders, notably the abuse of authority in the most petty and demeaning sense…It must be awful working with those penis challenged ones (Norson 2004c:7).¹⁴

An unintended focus on the unaccustomed Other

Much of the literature on the body focuses on bodies that are constructed as Other, such as women, homosexuals and disabled persons. Less has been written about the “bodies of heterosexual, ‘white’, able-bodied men” (Longhurst 2001:66). Most men are not accustomed to being the Other. They are:

…not subjected to rigorous analysis in relation to their embodiment, subjectivity, emotions and private geographies. In academic work on the body men’s material bodies are all too often overlooked. Such an omission helps enable white men to retain their position as rational and untainted by the messiness of corporeal flows. (Longhurst 2001: 67)

¹³ These included marine biologists, environmental scientists, environmental engineers and former staff of the Department of Environment and Heritage/Environmental Protection Agency. Given that the legislation was concerned with marine pollution this should not be surprising.

¹⁴ This type of denigration is not new. Cuffel (2007) records that Islamic, Jewish, and Christian medieval polemic all equated the feminine with pollution and then, in turn, gendered the despised Other as feminine, in much the same way that the enforcement officers were characterized by the recreational boating press as being men without penises.
Wheaton (2000:445) describes the uncomfortable idea of men’s bodies being on display and the uncomfortableness for these men to be “under the gaze of other men, specifically more proficient men”. She describes how they are more accustomed to the idea of the male gaze in the sexual objectification of women but far less accustomed to the idea of this dominating male gaze being directed at themselves or other men. By contrast most women are more accustomed to having to be aware of their bodies and to be responsible for its outputs and appearance—be it the monthly management of menses (Fingerson 2005; Kourtoulis 2001), weight (Davies 2003; Hardin 2000) or odour (Weinberg & Williams 2005). They are also considered more responsible for managing the mess of others. Through ubiquitous feminine hygiene advertisements to images of housewives wielding toilet ducks, women are more familiar than men with having their relationship with excrement and other bodily fluids laid bare for inspection and interrogation. Men in western society, on the other hand, have the luxury of being able to ignore or overlook their body and its outputs. Indeed, the only times that most men take account of their bodies is when they are weak or feminised bodies, such as sick or homosexual bodies. Indeed “[t]he formation of the ‘proper’ adult male—clean, decent, obedient, law-abiding—involves the abjection of the open, fluid female body” (Wolkowitz 2007:18).

Isaksen (2002a:793) notes that “having status as an individual, separate person and being accepted as a social being seems to be (at least in Western cultures) linked to ideas of not letting one’s organic body functions be visible and present in social interaction”. Indeed “to lose bodily control over bodily fluids seems to put the individual’s identity and human dignity at risk” (Isaksen 2002a:791). Once we are toilet trained, we do not expect others to control our urination or defecation; we are socialised to know where to relieve ourselves and how to properly dispose of what we have produced. As adults, to have our bodily functions controlled by others is connected to ideas of personal control and inadequacy. The boaters, as continent adults, believed that they were being told how, when and where to relieve themselves. This seeming loss of bodily control is strongly

Isaksen (2002a:803) suggests that “Urinary and fecal control are part of the process of enculturation, of being human. An experienced or imagined inability to master these basic functions is a symbolic and literal negation of social personhood”.

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associated with ideas of a loss of dignity and identity “because it makes visible what, according to cultural standards, should be kept private in order to maintain the construction of humans as different and separate from one another” (Isaksen 2002a:804). As such it was also evident in the discomfort expressed by enforcement officers in having to police the bodies of boaters.

As Germaine Greer (1999:269) notes “a man is continent; he contains himself”. He is also continent. Indeed, “men are often under understood to have secure (autonomous) bodily boundaries—bodies that are in control”; this is especially true for white, heterosexual, able-bodied men (Longhurst 2001:2). Because the consideration of bodily processes and the places where they occur is viewed as disruptive, faeces (Inglis 2002), and men's bodily fluids in particular (Longhurst 2001; Grosz 1994), like many unspeakable themes, are under-theorised and under-studied as a cultural or policy subject. Similarly, while the body and is often neglected in policy analysis (Twigg 2002; Gurney 2000), this case study firmly and unambiguously fixed its gaze on the material bodies and fluids of ordinary men.

It would no doubt have been very exposing and threatening to masculine identity to have the male gaze inverted and forced men to look upon themselves in each other recognizing that the gaze is a “phallic property, borne of a desire to control the object of that gaze” (Patterson & Elliot 2002:223). When identity is threatened, the response is to implicate others. Because women are constantly subjected to the male gaze, they cannot experience the privilege of bodily disappearance as much as the male gazer (Williams 1998:62). However, unaccustomed to such a gaze, the male boaters transferred responsibility for sewage generation, or even the need for a toilet to be present on a boat, to women. The public sphere is often perceived as being a masculine area and the private as being a feminine sphere (Kurtz 2007: 409). In this case study men were being forced to become activists in an area that was dealing with the private and embodied sphere. A strategy for managing this was to make the uncomfortably private about women.
Gendering blame and implicating leaky bodies

The following discussion considers how women were implicated in this discursive strategy of gendering blame (Berns 2007) by virtue of hygiene being their business and because of their leaky bodies. Lacey (1997:149) notes that:

...only subjects with normal bodies can claim full legal privileges, including, on occasion, the privilege of corporeal invisibility...The feminist argument, of course, is that the normal body is the male body, and that female body is constructed as abnormal, disruptive, problematic...Woman becomes the sex which, as Elizabeth Grosz puts it, bears the burden of physicality, sustaining man's position as the rational individual in just the way that women’s private labour sustains man’s public status.

As shown in image 7.4, the typical Queensland boatie is portrayed as a married white middle-aged social-drinking heterosexual male16. The Queensland-based recreational boating lifestyle magazine Go Boating promotes this ideal in its glossy pages which overflow with images of powerful boats and masterful sailors conquering pristine coastal environments while ample breasted beauties watch on or smile out from pages advertising beer, bourbon and high tech boating accessories. It is clear that boating is a place for men to be men and women to be passengers or accessories. Recreational boating is a “male preserve” (Crawley 1998:39) with an uncomfortable “culture of beer and bravura” (Laurier 1999:198). Indeed it was noted in Go Boating that “the number one’s [of boaters] would normally be mostly beer in origin” (Barron 2005:47), as if this somehow cleansed them or made them less offensive.

Typically recreational boaters represent a well-educated, affluent, politically and socially conservative, male segment of the population (Cottrell 2003:362). This is well reflected in the dominant recreational boating narrative which prescribes boats, boating and the sea as a male domain17. While there is not so crude a rule that women don’t boat, it “is

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16 Research shows that even as teenagers more boys than girls participate in aquatic leisure activities including boating (Moran 2011).

17 That recreational boating is the man’s domain is also reflected in the infrastructure that supports it. The early standards for the provision of onshore amenities in marinas mirror their inequitable provision in other public spaces. For instance Kirkman (1982:66) reports that one men’s toilet is provided for each 50 berths and a urinal for every 75 berths. By contrast only one women’s toilet is provided for every 75 berths. Despite
evident that when women undertake such activities they are undertaking male activities. Put simply, boats are for boys” (Ransley 2005:622). A woman’s role on a boat is passive as a spectator or passenger. Her accepted active role onboard is to take care of the needs of the skipper and to “learn to cook in a confined galley on a fussy two-burner stove…and a thousand other new tricks and skills just to be able to share their leisure with the men” (Choate 1957:111).

![Image 7.4: The typical Queensland recreational boater (MSQ 2008c:8)](image)

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the prevailing view that women tend to wash more frequently and for longer than men, even hand basin and shower provision favours men 1 per 40:75 berths and 1 per 80:120 berths respectively.
“As a space that is almost universally represented as female but that is populated overwhelmingly by males, the ocean is an arena of intense gendering processes, which impact and reflect social conceptions of gender at sea and on land” (Steinberg 2001:191). This masculine dominance of the aquatic environment is beautifully described by Lawrence Wenner (1995:124):

But out there on the waves, there was an attitude...It wasn’t anti-female exactly, and it was more complex than that. But it put girls and women in their place, and that place in that ‘naturalised order of being’ was not out on the waves. Naturally, that was a place for boys to act out being real men. To conquer their fears. To conquer nature. To conquer each other. And, as a sort of afterthought, to not be a female.¹⁸

Scatological status symbols and why men don’t do the dirty work

It has been noted that “gender is a fundamental component of seafaring, as it is of all human society” (Creighton & Norling 1996 in Flatman 2003:145). It has been argued that women boaters are more observant than male boaters to changes to the marine environment and are more likely to acknowledge the impact of activities, including their own boating activities, on the marine environment (Wester & Eklund 2011:76). Wester & Eklund (2011) found that female boaters are not only more likely to express environmentally friendly attitudes than their male counterparts, but that they are also more likely to engage in more environmentally-friendly sewage disposal practices, such as having a portable toilet on board that is discharged to shore, and are less likely to either legally or illegally dump sewage waste in the sea than men (Wester & Eklund 2011:75). While Wester and Eklund (2011:78) also found that when boating with a man “husbands usually make the final decisions with respect to the boat”. When it comes to managing sewage onboard a boat, men may make the sanitation decisions but women are disproportionately responsible for implementing them. This is because in many cultures there is a status issue associated with toilet and bathroom maintenance and use. People who deal with bodily waste typically do not have a high social status (Norton 2004:89).

In Australian culture, “[b]oth historically and in contemporary terms, the sexual division of labour…has typically meant that women are associated with domesticity and with small personalised spaces, men with the public sphere and with large and more impersonal space” (Stratford 1995:210). Since the mid 1800s there has been a relatively unchallenged and persistent idea that “the woman is superior to the man in all points of sanitary domestic economy, and more particularly in cleanliness and tidiness” (Florence Nightingale in Hoy 1995:32). Cleaning and caring for children were increasingly seen as “the sole and inherent province of women” (Sivulka 1999:2) and “great sanitary reformers…look[ed] to women to carry out practically their hygienic reforms” (Nightingale in Hoy 1995:32). There is an assumption that women value and naturally place a greater importance on cleanliness and sanitation (Sakamoto & Katsumata 2004).

Gender-biases are also particularly strong when it comes to excremental matters. Women are more likely to maintain and clean household toilets (Drangert 1998:163). Generally speaking, women are also responsible for bathing children and taking care of their toilet training (van der Geeest 2007b) and are more frequently responsible for managing the ablutions of dependent elderly relatives (Isaksen 2002a:795). Work that is associated with bodily products that are defined as unclean have low social status in most societies (Isaksen 2002b:141) and, as noted by Menninghaus (2003:14), “those activities that carry the greatest threat of disgust—such as the care of the sick and elderly—have for a long time been delegated to anonymous institutions” and women. In fact, excrement is usually only socially visible in these care situations (Isaksen 2002a:801).

In the workplace, women are also more likely to take on these responsibilities in roles such as nursing and childcare. It has been suggested that when men do enter these professions they do not carry out tasks related to the management of human faeces such as emptying bed pans, a task which is frequently expected of female nurses (Floge & Merrill 1986: 937). Inglis and Holmes (2000:238) argue that this is in part because “men’s time is regarded as being too precious to waste on the collection of wastes, while

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19 While I recognise that such distinctions are also associated with other social divisions such as class I have chosen to focus on constructions that are related to gender because these were the most obvious in the texts studied.
women’s time continues to be regarded as naturally encompassing the collection and disposal of detritus”. Women are also, for the most part, responsible for stocking the domestic lavatory with paper and for keeping it clean. Even in communes and alternative communities where there is a productive and ambivalent relationship with human faeces it is most commonly the mother who is responsible for managing and maintaining the toilet (Pickering 2010:50).

Longhurst (2001) found that while men who share a residence with other men may take on the work of cleaning toilets and bathrooms, once a woman joins the group none of the men continue to take on the responsibility for these kinds of tasks. Isaksen (2002a:144) suggests that this is because they believe that “it would be ‘natural’ for the women to taken on this work, and that if one of the men were to take on this responsibility he would risk his esteem and prestige among the other men”. Furthermore it would be “inconceivable for the men to clean up after a woman who had shed bodily waste” (Isaksen 2002a:144).

Isaksen (2002a:137) notes that cultural perceptions about masculine dignity imply a gender-specific regulation of clean and dirty work. Dirty work that involves actual contact with bodily waste is seen to challenge masculine forms of dignity in several ways including the association of this kind of work with low social status and with forms of feminine subordination that masculine dignity must disassociate itself from to maintain the hierarchical relationship between genders. By contrast, recreational boating, particularly power boating and yachting, is often considered an “androcentric enclave” (Crawley 1998:33) and the associated boat maintenance is a generally considered to be more of a masculine responsibility. While many of the tasks associated with this responsibility are not necessarily clean, it would be status lowering for the average male to have to manage not only his own faeces but the faeces of his passengers.20 The tasks associated with the management of sewage onboard a vessel under TOMPA, some more identifiably status lowering than others, could include cleaning toilet bowls, emptying

20 Greed (2003:4) has noted that even “designing toilets has been seen by some architects as the equivalent of doing latrine duty in the Army”.21
and cleaning sewage holding tanks or portable toilets, and maintaining sewage maceration and treatment machinery.

This is not to say that men do not have a recognised role in sanitation. For example, plumbing is often considered to be a traditionally and almost exclusively male dominated trade. However, this role is framed in terms of its relationship with technology, construction and infrastructure such as pipe laying; in other words its material elements. Wolkowitz (2007) notes that “Dirt created by or in the process of manly work is perceived to be cleaner than, for instance, bodily fluids, which are associated with the feminine.” While she refers to Dant and Bowles’ (2003) work regarding car repairer’s attitudes to the dirtiness of their work, she notes that because women rarely work in these environments, the responsibility for the dirt cannot be projected onto them.21

A story in The Coastal Passage (Jensen 2004:17) tells of the division of responsibility on board a recreational boat with respect to sanitary matters. The toilet breaks, he fixes it—“nothing irritates the skipper as much as problems with the toilet. Continuous motor failures, ongoing refrigeration problems and a never ending leak, while endlessly frustrating, seem insignificant when compared to the rage caused by a problem with the head”. She, on the other hand, is assigned “the thankless task of keeping [their] inquisitive children as far away from the skipper as possible” while he works. His is a technical job, hers a care-giving role. Perhaps this is why she notes that on their previous boat which had a portable toilet “it became my responsibility to empty it since I used it most. (As if it is my fault I can’t stand on the stern and let flow!)”. This is despite the fact that such units are notoriously heavy and cumbersome to carry and consequently quite difficult to empty as evidenced by the conclusion to her tale in which she laments:

On one occasion, after towing the boat home after an Easter holiday, I had to empty the Porta-Loo in our own toilet. After nervously carrying it through the house I made it safely to the water closet, only to lose control as I heaved it up to empty it. The resultant mess defies description and even now my stomach churns at the memory of it. It took months to get rid of the odour. I was thankful that we had brown-toned, patterned wall paper.

21 Donald Reid (1993) likewise notes the positive framing of the work of sewer workers in terms of its engineering and infrastructure components, as opposed to that of cesspool cleaners whose work and lifestyle were morally linked with the waste they removed.
Clearly, the chivalry of recreational boaters did not extend to sanitary matters. While she “respect[s] the skipper’s utter distaste for repairs of a sanitary nature” she is equally resigned to performing the domestic role expected of her with respect to sanitary matters.

Forcing a boater to install a holding tank and use a sewage pumpout facility turns him into an unwilling gongfarmer, or—even worse—chambermaid, with all the attendant negative stereotypes. Perhaps this is why the various marketing materials for sewage pump-out and portable toilet dumping facilities available in Queensland invariably depict young blonde women performing the task of emptying the tank (image 7.5):

*I'd long since donated my porta pottie to a white elephant sale, and even the attractive packaging of the European designed device with a picture of a young lady off to empty the contents did nothing to convince me to purchase another.* (Moorhouse 2005:1)

Such images support the unspoken expectation that such sanitary work is naturally the work of women.

![Image 7.5: Brochures for sewage pump-out and portable toilet dumping facilities invariably show young women performing the task](Image7.5)

Paradoxically, the sewage removal tasks when undertaken by men were seen to be a highly skilled and technical task:

*For the casual boatie, maintenance of holding tanks and treatment systems infrequently used can be a source of potential health and explosion (S57D2001).*

*This would eliminate the problem of boaties unskilled in sewage disposal having to handle and carry tanks containing raw sewage* (Sunday Mail 2000:126).
However, to manage the potential loss of face of being perceived as unable to manage a highly skilled and technical task, even if it does involve the management of human faeces, boaters tended to make claims against the legislation on the grounds that it would be unfair to the women boating with them. He preserves his dignity and masculinity by denouncing the hardship that might be caused to women; the argument becomes about her weakness and leaky body and not about his disgust or lack of skills. It is presented as a kind of chivalry, but a chivalry that does not extending to emptying out the porta-pottie.

The implication that only women use porta-potties leads to a situation where men might feel if there is a suggestion that they too use them that “they are in a sense, being temporarily contaminated with the abject, their sense of self and independent masculine body threatened” (Newbery 2003:2010). These emasculating concerns were expertly summed by in an article that appeared in Go Boating which expressed the following:

These boats are generally the average worker’s pride and joy runabout. They are primarily used to get out on the few weekends that the weather is good to catch a few fish or just relax and have a beer with the mates. Now for these poor buggers the new laws mean crossing the legs for extended periods or carrying a porta-pottie—definitely a loss of masculinity involved here. (Barron 2005:47, my emphasis)

The parallel problem of women and waste on boats

Seafaring legends and superstitions suggest that women onboard vessels bring bad luck. Across a number of cultures, anthropologists have identified numerous pollution beliefs involving women as the offending pollutant when a society views them as being in the wrong place (Nagle 2009:69). Indeed, the female body “has a long history of being understood as a weak body, frail, something breakable and easily damaged, a body that requires protection...[and] is also at times cast as filthy, dangerous, simultaneously reviled and desired, a leaky body without boundaries, the abject body” (Newbery 2003:209-210).

22 It might be suggested that the somewhat feminist agenda of this analysis is misleading. However, the overtly sexist and misogynist submissions, ministerial and press articles provide an abundance of evidence to suggest there is merit in its observations. For instance, one serial ministerial writer took great offence to an unintentional administrative error that had addressed his correspondence regarding the new sewage legislation to Mrs rather than Mr: “I thank the writer for correctly identifying my gender this time” (Mi-2004).
Public toilets are one of the few truly sex-segregated spaces remaining in Western society (Anthony & Dufresne 2007), however, the apocryphal basis of this segregation is biological gender, not gender identity, and the presumed biological distinction between men and women and their different excretory needs (Browne 2004:332). As a result the toilet “reveals crucial signs of the neurotic gendering of self/space” (Dutton, Seth & Gandhi 2002:141).\(^{23}\) It also has a relationship with the “entrenched attitude…that [women] would not choose to go in public” (Greed 2005:577).\(^{24}\)

Many ‘social’ boaties (mainly females) don’t like ‘going to the toilet’ on a boat because of a perceived lack of privacy. They prefer to go ashore and use one of the hundreds of toilets provided in waterfront parks by local authorities (Keenan 1997d:140).

Greed (1995:577) provocatively suggests that “it is more acceptable for a man to relieve himself in public. Just like male dogs, any tree or wall will do for male humans…regardless of the legality of the situation”. While I feel this view is somewhat overstated for the majority of the male population, it is true that men, as a group in general, are more used to urination being a public issue as they are accustomed to going in front of other men. For example, when accessing public toilets men are expected to use urinals for urination, with cubicles being set aside ostensibly for the purpose of

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\(^{23}\) This segregation of the sexes seems to occur in most cultures (Ciochetto 2003) and public toilets (i.e. those outside the home) in particular “are remarkably gendered spaces” (Barcan 2005:7) both socially and semiotically. For example, in Western culture toilet signage almost universally feature symbolic images of men and women (And disabled individuals who are effectively rendered ‘genderless’) to represent intended users rather than an image of a toilet itself (Ciochetto 2003). This ‘enforced’ segregation has prompted some scholars to consider the inequitable and inadequate provision of women’s toileting facilities in public places (eg. see Anthony & Dufresne 2007; Cooper et al 2000; Greed 1995). They see this unequal provision as a social/cultural or symbolic issue rather than one of just material infrastructure; a “tangible relic of gender discrimination” (Anthony & Dufresne 2007:267) that often goes unnoticed and is considered normal, natural and acceptable.

\(^{24}\) Quite obviously ordinary women use the toilet/restroom for a wide variety of purposes ranging from the expected urination and defecation, to managing menstruation (Anthony & Dufresne 2007), having time out (Mills 2006), socialising and, where no suitable alternative is available, to breastfeed (Warner n.d). It is true that some men have similarly broad experiences in bathrooms, but these tend to be stereotyped as the fringe activities of othered groups of the male cohort, for example drug taking or sexual (most often homosexual) activity (Magni & Reddy 2007). Ordinary men’s use of toilets is more limited and prescribed. As a result men’s public toilets “are semiotically intricate spaces, filled with anxiety and unspoken rules…sites where heteronormative masculinity is defined, tested and policed” (Barcan 2005:7).
defecation only (Ciochetto 2003:211). In fact many men threatened that were the laws introduced they would simply go over the side. The idea that “males in any case go over the side” rather than use toilets was seen by some making submissions to “discriminate against females” (S19-2001) by exposing them to the laws that male boaters and swimmers (Lewis 2005:5) could avoid simply because “men can do without heads more than women” (S34-1998).

*Can you in your mind’s eye see a female using a porta potti in a tinnie with all around watching – perhaps tinnie class users should be encouraged to use the bushes above the high water mark as is probably the current practice.* (S63-1989)

Does the fact that it is permissible for a man to publicly urinate over the side of a vessel make his excrement doubly private, more taboo? This distinction was expressed in some public submissions, which noted that it was ok to urinate overboard but not to defecate in a bucket and dump overboard. They used these strategies to show that the legislation was unworkable and that, while they disagreed with it, they were not out of control: “In all the years spent cruising Moreton Bay I have never seen anyone in a runabout hanging over the side doing number two’s” (Barron 2005:47). However, the excremental discharges of any female passengers are positioned as problematic to manage. Indeed “nature and the feminine are often conflated and, through tropic connections with the corporeal, are made to seem objectified, often ill and certainly in need of management” (Stratford 1995:210).

This is in part explained by Williams’ (1998:68) observation that men’s bodily fluids are generally not regarded as polluting and contaminating for women, in the same way or to the same extent as women’s are for men. Indeed the male body is considered symbolically to be cleaner than the female body, young people’s bodies to be cleaner than older people’s bodies, and rich people’s bodies to be cleaner than poor people’s bodies (Isaksen 2002a:143). Women’s wastes “have long been considered deviant and feared as a source of contamination” (Weinberg & Williams 2005:317). To illustrate how disgusting the discharge of vessel holding tanks is it was suggested that it is “sewage cocktail – there’s poo, blood, pee, used tampons and toilet paper. I once saw a mullet with a tampon still hanging out of its mouth” (Green 2008:13). The presence of tampons underscores the

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25 It should be noted that this design assumes a man’s willingness to expose his penis in front of other men (Rez 2000:iii); however, some men find this communal urination confronting and exposing. In some workplaces cubicle doors and the right to defecate in private had to be fought for (Webber 1960).
disgusting nature of the discharge because a tampon in the waste is somehow worse than the faeces that are expected to be there and suggests that women are responsible for the waste\textsuperscript{26}. This is tied up in the implication made by boaters that female passengers’ urinary and defecatory processes were unpredictable, uncontrollable and unmanageable:

\textit{…it is not uncommon for a family of (say) four people to fill up the lower tank [of a portable toilet] with a mixture of effluent and water in just one or two days…Experienced boat owners have tackled this problem in different ways. Families quickly discover that taking a leak in the chemical toilet is a waste of scarce capacity, so the loo tends to become the domain of the girls, while the boys face south and do what comes naturally…at least as far as Number ones are concerned} (Webster & Cunningham 2005:16).

There is some truth in the boaters’ observation that women would not want to be seen defecating in a bucket in public. This is based in some part on the idea that women’s faecal odours, for example, may destroy male desire (Miller 1997). The work of Weinberg and Williams (2005:317) also supports this idea, finding that “women’s embodiment of the fecal habitus…include[s] a heightened concern over controlling evidence of their bowel movements”. But I would suggest the argument being put forward by boaters regarding women and waste on boats is based on more than a concern for their modesty. Rather it is part of a rhetorical strategy to problematise the idea of regulating the discharge of sewage on boats in a way that does not rely on emasculating the male subject. However, such an argument is underscored by the idea that women are not real boaties, they are simply “social boaties”, unsuited to time at sea. This was also present in the idea that women would be unable to deal with the enforcement of the legislation:

\textit{Will the B\&FP be instructed to enquire if a couple of fishermen in a tin dingly have, or as it were, gone over the side? Will they have to see it happen, in order to take action. The mind boggles at the sensitivity required by these officials in meeting their responsibilities. What will they be saying to persons of the female persuasion in some circumstances? However in all fairness, the law and its policing should be applied equally to all} (M9-2004).

\textsuperscript{26} Weinberg and Williams (2005:317) note that while menstruation is considered dirty, women’s bowel movements “may be more stigmatizing than their menstruation” which is reflected in the idealised view that women don’t shit.
This can be compared to the type of questioning that they believed that male boaters would be subjected to, for example:

*How can I prove that I have been complying? Will I be subjected to detective-like questioning on the places I went ashore for a toilet stop so as not to fill my Porta Potti too soon?* (M9-2004).

This type of hyperbolic reaction was part of an attempt to discredit the legislation as being unenforceable and over-the-top. But it also pointed to the uncomfortable fact that the legislation was about controlling bodies, which makes it even more abhorrent and offensive to men who are unaccustomed to having their bodies controlled in this way.

*Honestly, what do we do now? Obviously, not going to the toilet is not an option!* (M9-2004).

*No person should have to go through the process of having to beg for permission to get rid of his or her human waste in this way. Either it should be a self-evident right of citizenship in a civilised society or some provision should have been made already and notified to all, before the laws were implemented* (M9-2004).

**Conclusion**

In describing the “great stink” of Paris in the late nineteenth century, Barnes (2005:121) notes that:

*The pressure of popular disgust and health warnings actually pushed in opposite directions simultaneously; the intensity of the stench, the disgust, and the fear raised the stakes of the debate and had the effect of hardening positions on both sides.*

Something similar occurred in this case study. The boaters were blinded to any possibility other than opposing the regulation; they simply could not see past their shit because their defecatory practices were put out in the open and openly challenged.

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27 Women by contrast are accustomed to having to wait in line to use toilets and to having their bodily functions (menstruation, incontinence etc) made the subject of television and magazine advertisements so it is not so ludicrous to them or as offensive.
By looking at the issues below the waterline we can observe that although the legislation was outwardly presented as being about boats and pollution it was as much about shit and shitters. Similarly we can recognise that boaters’ resistance to the legislation was as much about the desire for an unregulated body as an unregulated boat.

Longhurst (2001:89-90) observes:

There are still some abject sights/sites that remain unspeakable…We may be able to discuss discursive constructions of embodiment but we still cannot talk easily about the weighty, messy materiality of flesh, or the fluids that cross bodily boundaries on a daily basis.

Indeed, in this instance, this inability to openly discuss bodies, bodily functions and faeces in the policy process resulted in the use of a range of circumlocutory strategies which extended in varying measure through a range of privileged and rational political and public discourses and irrational gender and disgust discourses. These evasive strategies to avoid talking directly about the relationship between the boating men and their waste resulted in an unsuccessful focus on infrastructure solutions to attempt to change boaters’ sewage disposal practices and rational science-based education to attempt to change boaters’ attitudes toward managing their waste. These economic, scientific and infrastructure matters were pursued at the expense of recognising and dealing with these more fundamental emotional matters which were neglected by boaters, environmentalists and policy officers in the process. The only participants to acknowledge the important role of visceral emotions like disgust in their responses were members of the community who had experienced unexpected encounters with the faeces of boaters when swimming or walking their dogs on the foreshore.

Considering the matters below the waterline sheds some light on why the significant legislative changes did not achieve behavioural and attitudinal changes and why a low level of compliance continues to this day. It also helps to explain what happens when strong emotions are forced to be displaced by rational claims. However, as we have seen in this chapter these sublimated emotions emerge elsewhere such as through abusive rants and hyperbole that seek to maintain masculine identity by attacking the identity and motives of policy makers and enforcement officials or by relying on existing gender
tropes to foreground the grossness of women’s leaky bodies as a foil for their own continent bodies. Being attentive to these matters would give the policy a deeper understanding of the issues behind the rational contributions made to policy processes. Giving participants the permission to express their concerns in an uncensored matter may have a better chance of achieving sustainable outcomes. In the next part I consider how changing the way that unspeakable issues are discussed in policy processes may be achieved.
REIMAGINING THE
UNSPEAKABLE POLICY PROBLEM
CHAPTER EIGHT

Critical possibilities and transformative potentials

Introduction

This chapter responds to the third research question – *what could be different?*. Designed to reflect on the findings of the first two questions, this chapter considers the broader implications of this research and considers how freedom to talk about the unspeakable in a shameless and open way might impact on both the way the policy problem is framed and the resulting policy outcomes. In the context of unspeakable issues, the values and beliefs of all parties involved may remain hidden behind objective arguments about infrastructure, economics and the public good. This matters because they should be openly discussed to allow debate to address the causes of their problems and issues, not merely the symptoms and facades, and begin to talk about them openly. Much in the way one listens to Shostakovitch’s experimental pieces for the notes that are not being played, what is unspoken or silent also requires attention because “what is not said, the silences in discourse based often on assumed and implicit norms, is as deserving of analytic attention as what is said” (Yanow 2000:80).

By analogy, despite the emotional, physical and psycho-social effects of the medical condition faecal incontinence, it has been estimated that forty percent of sufferers have never discussed the problem with a health care professional due to embarrassment and a fear of negative reactions (Patel, Bliss & Savik 2010:73). Patel, Bliss & Savik (2010:74) note that “unless the topic…is discussed more readily, specifically and comfortably, people will continue to be without the care they need”. Indeed, research has found that patients who are actively encouraged and supported to discuss taboo and sensitive
topics, like faecal incontinence, are no longer embarrassed to do so (Norton 2004:90). Similarly Sofoulis (2005:450) believes that severe water restrictions in Sydney resulted in the etiquette of toilet flushing being widely debated on talkback radio. She argues that “[t]his kind of public discourse about normally unspoken habits around privacy, sanitation and waste may contribute more to long-term change in water use habits than do emergency water restrictions”. In this chapter I discuss the aspects that prevent unspeakable issues such as these from being discussed and offer a way forward in terms of addressing the psychosocial sensitivity surrounding them, particularly in terms of shame, and addressing the attendant verbal proscription, most specifically the lack of an appropriate vocabulary.

How can we legislate something we cannot talk about?

Because wicked problems, and by extension unspeakable problems, are imperfectly understood, it is important that they are discussed by all relevant stakeholders in order to ensure an inter-subjective understanding of their complexity (APSC 2007:27). However, when these sensitive issues need to be addressed, most people display an unwillingness to speak their mind, electing instead to keep silent about their feelings and to say only politically correct things due to fear and distrust (Ng & Liang 2005). In policy processes dealing with unspeakable problems, it can therefore be difficult to engage participants, particularly those who are the subject/object of proposed policies, to talk honestly and openly about issues, much less for policy officers to begin uncover deeper meanings and constructing shared meanings.

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1 A similar example can be found in the attempts of the Colorectal Foundation of Australia to raise awareness of the colorectal diseases and to increase testing. In 2006/07 the CFA screened television commercials that featured a middle-aged man talking about his recent bowel cancer screening to everyone from the receptionist at this work, to business clients over lunch, and the office cleaner (CFA 2006). The advertisement underscored that while it may be uncomfortable topic it is okay to talk about bowel cancer and bowel cancer screening tests. In follow up campaigns they used a television personality who had been previously diagnosed with bowel cancer to promote early identification through the use of “simple, non-invasive test that can be completed in privacy at home” (CFA 2008) so that bowel cancer screening could become routine, “just as breast and cervical cancer screening is the norm” (BBC 2009:1) and to lift the shame surrounding it.
Talking about human faeces, even in a government sanctioned policy process, is never easy for anyone, including policy makers. We can observe that sewage was virtually invisible in the materials used in the Think about it!!! campaign materials used to promote the initial passage of TOMPA. Indeed, while the promotion materials featured pristine coastal vistas and clip art representations of oil, garbage and chemicals, there were no images to represent—however abstractly—sewage. Even within the text, references to sewage were few and involved considerable circumlocutions such as referring to the pollutants covered by the act as being “garbage, chemicals, oil, etc” and specific references to TOMPA’s sewage provision as relating to “waste from a toilet” (QT 1995a, my emphasis). Such an omission may be understandable in the context of a law introducing changes to the disposal of a range of vessel-sourced pollutants. It does not, however, explain the reticence to engage with the issue when it was the entire and unambiguous focus of the lengthy consultation and legislative review process, which again chose to focus its visual texts on seemingly unpolluted blue waters and blindingly white and unpolluted beaches.

One might expect that after so many years of talking about ship-sourced sewage this might have changed. Indeed, in 2008 when MSQ introduced its Cleaner Marina pollution control campaign (image 8.1) which considered sewage alongside a range of other pollutants in its education materials, things seemed to have improved. These new materials were focussed on reminding recreational boaters of their responsibility for managing all of the wastes generated either on or by their vessel. These new materials returned to the original idea of Think about it that was used almost a decade earlier in the original TOMPA promotional materials (albeit with far fewer exclamation points). The new campaign also subtly referenced the earlier ideas of the All hands on deck for a cleaner coast campaign where everyone was seen as having a responsibility for, and interest in, pollution prevention. Interestingly, all pollutants were visually represented, including

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2 The 1990s saw the definition of environmental problems shift to highlight the responsibilities of individuals. This shift was accompanied by a widespread tendency to talk in terms of the larger universal ‘we’ when describing environmental problems (Wall 2000). The early consultation materials were consistent with the broader environmental discourse at the time which adopted this “universalizing language that implied we are all to blame” (Wall 2000:26). This was also consistent with the concurrently running Queensland Government Health Waterways program based on the image of a paper boat on the water with the slogan “because we’re all in the same boat” (Healthy Waterways 2000).
sewage for which a toilet was considered a suitable substitute. The dark slick in the water could also as easily be imagined to be a sewage discharge as an oil spill. The release of this campaign roughly coincided with the remaking of the Regulation. However, such enlightenment was short-lived.

In the revised *Marine Pollution: What kind of waterways do we want?* campaign (image 8.2), which continued this trend of considering all pollutants covered under TOMPA, sewage was subordinated. Images which demonstrated the impacts of pollutants were included with the exception of sewage, which was now considered too inappropriate to include as an image. This is despite some draft materials which depicted toilets with motors and excrement from a vessel (represented euphemistically as the number 2) floating on the tide toward a child playing in the sand in the foreground of the image. These highly provocative and inspired images were deemed too provocative and vulgar due to the direct reference to excrement, and therefore unsuitable for public distribution as they were thought to be frivolous and to not treat the subject of marine pollution with the appropriate level of seriousness required by a government agency. Indeed, it was considered by some that such images would fail to meet the fabled *Courier-Mail* test, an
ethical simplification used by Queensland public servants to suggest that a policy program or output would not be able to appear on the front of the state’s tabloid newspaper without causing offense or giving the appearance of the government wasting public funds or otherwise acting irresponsibly.

Even the international logo representing sewage pump-out facilities shown in image 8.3 does not reference shit\(^3\)—indeed, one conceptually struggles to derive any waste-related relevance or meaning to the symbol.

\(^3\) It is reminiscent of what Praeger (2007:168) describes as the challenge facing toilet paper manufacturers: “to market a product that exist wholly to wipe off smeared poop without inviting the consumer to picture its use.”
That scholars and policy makers are unwilling or unable to address these matters is not entirely of their own making. The very fact that the state government dared to bring about discussions about excrement in the first instance deserves acknowledgement because, as Gandleman (1989:13) notes

> even in our times of verbal permissiveness or, perhaps, freedom, when things sexual can be freely mentioned, anything that pertains to the excremental functions of the body is still not welcome.

Excrement, in all its material and symbolic forms, remains the last taboo (Black & Fawcett 2008; D'Souza 2010). If spoken at all, the use of euphemism to discuss excremental matters “shows that we are in the presence of taboo and the danger and disgust that attend it” (Miller 1997:152). LaCom (2007) argues that “taboos which enforce silence about our bowels [are] so pervasive” that when engaged “conversation stops cold and verbal constipation becomes the order of the day”.

**Talking about faeces**

As we have seen, through the civilising process discussed in Chapters 3 and 4, at the same time that public activities began to be regulated by codes of civility, reason and orderliness private conduct began to be civilised through “languages and techniques of understanding and self-mastery” (Rose 1999:69). Elias documents this civilising process where the imperative to conceal bodily processes meant that “farting, belching, guzzling, slurping, dribbling, pissing, shitting…eventually became unspeakable” (Cregan 2006:23). Cregan (2006:2006:59) observes a tension between Elias’ thesis “that as people become more civilised they become ‘silent’ on the grosser behaviours and stopped directly curbing them because they were understood as improper” and Foucault’s repressive hypothesis which suggests that people cannot stop talking about such things. Indeed, repression in some instances led to an incessant talking about that which was supposed to be repressed.

While Foucault asserts that a “veritable discursive explosion” took place, he also concedes that this was accompanied by a vigorous expurgation of the authorised vocabulary for discussing sex and the codification of “a whole rhetoric of illusion and
metaphor”, including a stricter definition of when and with whom it was appropriate to discuss such matters (2005:41). Foucault argues that there was a correspondingly steady proliferation of discourses concerned with sex. By this he does not simply refer to illicit discourses but also the development of a whole range of medical, religious, psychological and other discourses that created “an institutional incitement to speak about it” (42); constantly and explicitly even if in a mostly medicalised, pathologised manner. So rather than being silenced sex became rhetorically prolific. Foucault argues that the effect of this institutionalised and incessant discourse was an increasing encroachment of state law into the private realm.

Something similar happened with shit in this case study and the myriad scientific, environmental, public health and illicit discourses that were invoked to discuss an otherwise unspeakable subject. Echoing Foucault observations regarding sex, Laporte notes (2000:112):

We dare not speak about shit. But…no other subject – not even sex – has caused us to speak so much. The unnameable is enfolded by strange rumour, which combines the most immaculate silence with the most prolix chatter.

Through his work Laporte identifies “the frenzy to put into discourse what is sentenced to disappear or classified as secret” (Hawkins 2006:51). Much as occurred with sex “rather than power imposing taboos of non-existence and silence, it produces, brings into being, knowledge and technologies whose effect is not the prohibition but the organisation of our secrets” (Hawkins 2006:51).

Due to the high degree of verbal proscription associated with talking about faecal matters, a high degree of euphemism and circumlocutory strategies are employed to actually avoid talking directly about it and to secretly manage it. As shown in the following example, the author skirts around the issue and can’t seem to find appropriate words to describe shit but can describe her disgust about the boaters sewage disposal practices and her opinions about their implications through oblique references to “clean and hygienic waterways” and “providing pumping stations” which suggest she is referring to ship-sourced sewage.
It is time government and the boating community faced up to their responsibilities for clean and hygienic waterways. I am lucky enough to live within a few hundred metres of a Broadwater beach but I choose not to swim in it or allow my young grandchildren in the water because just a few metres out are moored a number of boats on which people live. Why does the government allow these people to pollute our environment? (M1-2002).

As demonstrated in the following extracts it is also common for participants in policy processes to adopt abstract referral strategies to avoid addressing excrement directly such as replacing the term faeces with oblique references such as “you know what”, “their waste” and “it”.

There was an article in the local paper about a swimmer almost ending up with a mouthful of you know what while swimming in the Broadwater. Surely in this day and age it shouldn’t be allowed (M10-2004, my emphasis).

They are dumping their waste continually into the water and nothing is being done about it. It is obvious and proven – you can smell it! (M2-2002, my emphasis).

However, when an individual chooses to talk about these excremental matters because “there are no positive words related to defecation in Western societies and no positive connotations” (Norton 2004:86) they tend to rely on the use of terminology from two broad categories; “the medical-clinical and vulgar-demonic” (Isaksen 2002a:794; see also Hadolt 1999; Hepworth 2000; Persels & Gamin 2004).

As I show in figure 8.1, these can be expanded to include infantilised language not intended for prurient effect, the technical and highly sanitised discourse of policy and infrastructure, and somewhere between a formal language which attempts (unsuccessfully) to bridge the difference.
<table>
<thead>
<tr>
<th>used by</th>
<th>government</th>
<th>government environmental groups</th>
<th>community members</th>
<th>recreational boaters</th>
<th>community members recreational boaters</th>
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<td>policy</td>
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<td>vulgar-demonic</td>
<td>juvenile</td>
<td>formal</td>
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<td>sewage, effluent</td>
<td>bowel motions, BM stool</td>
<td>shit, crap</td>
<td>number 2, poop, poo</td>
<td>excriment, faeces</td>
</tr>
<tr>
<td>definition</td>
<td>Infrastructure used to transport waste (primarily sewage)</td>
<td>Combined excrement, water &amp; effluvia in sewage system</td>
<td>waste matter discharged from the body, esp faeces</td>
<td>waste matter discharged from the body, esp faeces</td>
<td>waste matter discharged from the body, esp faeces</td>
<td>waste matter discharged from the body, esp faeces</td>
</tr>
<tr>
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<td>spoken &amp; speakable</td>
<td>unspoken but speakable</td>
<td>spoken and speakable</td>
<td>unspeakable</td>
<td>unspeakable</td>
<td>unspeakable</td>
</tr>
<tr>
<td>proximity to source</td>
<td>distant i.e. pipes and infrastructure</td>
<td>semi-distant i.e. mediated by infrastructure</td>
<td>proximate i.e. not mediated by infrastructure</td>
<td>proximate i.e. not mediated by infrastructure</td>
<td>proximate i.e. not mediated by infrastructure</td>
<td>proximate i.e. not mediated by infrastructure</td>
</tr>
<tr>
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<td>public problem solve with technology</td>
<td>personal problem solve with medical intervention</td>
<td>personal problem solve with humour</td>
<td>personal problem solve with behaviour change</td>
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<td>government responsibility</td>
<td>collective responsibility</td>
<td>private responsibility</td>
<td>private responsibility</td>
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<td>private responsibility</td>
</tr>
<tr>
<td>degree of control</td>
<td>means of control</td>
<td>controllable i.e. control effluent characteristics/quality</td>
<td>uncontrolled, uncontrollable and out of control</td>
<td>uncontrolled, uncontrollable and out of control</td>
<td>uncontrolled, uncontrollable and out of control</td>
<td>uncontrolled, uncontrollable and out of control</td>
</tr>
<tr>
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<td>scientific and environmental</td>
<td>medical</td>
<td>disgust</td>
<td>disgust</td>
<td>disgust</td>
</tr>
<tr>
<td>dominant element</td>
<td>material</td>
<td>practical</td>
<td>practical</td>
<td>symbolic</td>
<td>symbolic</td>
<td>symbolic</td>
</tr>
</tbody>
</table>

Figure 8.1: Identifying excremental discourses in the case study
The use of clinical-medical discourses to discuss the excremental unspeakable

The medical or clinical ways of talking about excrement is used primarily in the medical settings, care-giving environments such as nursing homes. This is the language of doctors and nurses who must find ways to discuss such intimate matters in a professional way and use indirect and objective terms (Persels & Ganim 2004) which seek to distance the speaker (and spoken to) from the excrement in an effort to talk around it rather than about it directly. For example, in nursing, references to shit are formalised and indirect (Tanner 1995:92) to avoid embarrassing the patient but to ensure that important information is provided to and by the patient in a health care environment. The terminology employed includes stool, defecation or bowel movement/motion which is often shortened to BM.

Bates (1969:9) considers such circumlocutory speech to be “one of the many compromises with reality that have developed in the nursing world”. Despite the fact that it has been found to be wholly inadequate in a health care setting because it intentionally or unwittingly takes control away from patients because the words are not well understood (Norton 2004:87), this medico-clinical vocabulary was employed by many members of the public who were unsure of how their comments would be received and who were eager to keep them appropriate and politically correct.

I think it is fair to assume there must be some compelling urgency to legislation that specifies fines of any kind, let alone over $60,000 for having a bowel movement.

(Norson 2005c:1, my emphasis)

The use of this vocabulary is likely to have popular appeal because many people are reluctant to use what are thought to be swear words or words in the common public vocabulary, such as baby words, in a professional setting (Norton 2004:87).

The use of infantile discourses to discuss the excremental unspeakable

Like the medico-clinical language, infantilised euphemistic language is employed in an attempt to find an inoffensive way to discuss excremental matters through the use of words such as poop and poo. While such language is assumed to only be targeted at young children it is also often used by prudish individuals in place of a more vulgar or
explicit term or used by others in an effort not to offend these prudes or a sense of political correctness.\textsuperscript{4} However, it was also used to boaties to ridicule the legislation by suggesting that a range of fanciful ideas were “no sillier than the marine poo laws” (Norson 2005d:16, emphasis added). This language was also employed in the construction of the poo police (Crawford 2004; Norson 2004b) to infantilise the regulators to rob them of their authority.

The use of technical scientific discourses to discuss the excremental unspeakable

The technical and highly sanitised discourse of public policy often employs the disembodied technical and scientific language of engineering and infrastructure using terms such as effluent, sewage, wastewater and sewerage. Through its focuses on infrastructure and effluent quality characteristics based on scientific parameters this language obscures the embodied aspects of excrement and through a process of abstraction divorces any association of human faeces from the human that produces it. It is for this reason, and its use by government, that many participants in the policy process and the media tended to favour the use of this kind of lexicon for both positive and negative responses to the legislation or the practices of boaters.

The use of the term effluent was often used in a euphemistic and vague manner: “\textit{With increasing boating activity, it is unfair for people to swim and fish while boats are moored adjacent discharging effluent}” (S55-1989). The use of the term sewage was often used in an ambivalent sense because it was the language used by government through its definition of the policy problem as being about “\textit{ship-sourced sewage}” (QT 1998a) or “\textit{vessel-sourced sewage}” (QT 2000a), when, in obvious reality, the substance is sourced from the people aboard, and is not, strictly speaking sewerage which refers to substances that flow through sewers. Once again, the euphemism of infrastructure comes into play.

\textsuperscript{4} An excellent example of this is the use of the word poop in Poop Culture (2007). I must admit to feeling cheated that Praeger (or his editors at Feral House) felt there was no choice but to use such a safe and vacuous word both in the title and throughout his work, particularly given that the book claims to take “a dirty, smelly, unpleasant subject like shit and brings forth ideas that are empowering, dignifying and life affirming” (Provenza in Praeger 2007:ii), albeit in what I identify as a particularly self-conscious and self-censoring manner.
The term sewage was also often used in a negative sense as in the following examples:

“The community has great objection to sewage on beaches and in waterways” (S124-1998) and “A number of people will not handle sewage for perceived health risks” (S126-1998) tendered by a non-boater and a boater respectively. At the time it was also used in a forceful manner which used adjectives like untreated or raw to magnify and clarify the disgusting nature of the sewage, for example:

The whole notion of swimming in water containing untreated sewage is repugnant and completely unacceptable in a modern society” (Webster & Cunningham 2005:14)

Knowing that untreated sewage is discharged anywhere along our coastline including confined areas such as the Broadwater where there is a large concentration of boats, many people swim and children play is absolutely abhorrent and also a colossal health risk (S25-1998).

An inner-city walker said he was “shocked” and “disgusted” by the dumping of raw sewage from boats moored in the Brisbane River at Gardens Point last week. Even worse, the man who did not want to be named said he has seen it happen before. Last Wednesday, while on his daily walk, he reported seeing a man throw black matter from a bucket into the river from a small boat at about 7.15am. “He looked around and then dropped it in the water I couldn’t believe it, it’s bloody awful,” he said. The walker later saw used toilet paper float past. “I’m disgusted by the fact there are people who live on the river and there’s a beach not far away at Kangaroo Point where dogs play,” he said. “There are people fishing in there and then eating their catch (Royes2010:1).

However, as a general rule the term excrement was reserved for use by non-boaters to convey absolute disgust in the practices of boaters as in the following examples:

Whilst walking along the designated doggy beach beyond Seaworld we happened upon, not one, not two, but quite a few piles of human excrement if you know what I mean! We were absolutely disgusted…It makes me sick that responsible dog owners pick up after their pooches, but humans just throw it overboard for people to swim in (M3-2001, my emphasis).

As I walked along Fisherman’s Beach at the water’s edge I noticed human excrement on the beach being rolled in the tide…As I walked further I realised there was much more excrement that what one person would deposit in one, should we say, sitting. It was not just in the tide, but also along the beach and, in some places, mixed within a light seaweed cover. I didn’t notice paper… [but] there were three vessels in the bay…It doesn’t appear fair to always blame the houseboat, but quite often it is the only vessel in the bay…and last Christmas people were swimming with floaters (M2-2001).
What is notable in the examples is that the author’s were aware that the term excrement can have broader application than simply referring to human faeces, so they were certain to qualify their use of the term with asides such as “if you know what I mean”, or intensified the use of the word excrement by linking it with the idea of humans to ensure that the correct interpretation was made and to underscore its repulsiveness. While these submissions and ministerials emphasise the unwanted contact with the sewage/excrement despite their apparent disgust they tended to adopt a somewhat conciliatory tone:

Myself and my family lived on a houseboat for one week only. Swimming and enjoying being with my grandchildren I was absolutely horrified to see RAW SEWERAGE coming from under this vessel around us…I have been passed on to no less than 10 departments, two mentioned your name saying you are a caring man, I decided you were the one I should write to (M1-1998).

The use of vulgar-demonic discourses to discuss the excremental

Finally, whether used in literature, the visual and performance arts, or public policy submissions from boaters, the vulgar and obscene usage is often adopted for base comedic effect because laughing about excrement is a way for us to attempt to distance ourselves from its physical reality (LaCom 2007)^5.

^5 It has also been suggested that beneath the superficial humour or shock value of much literature and artistic scatological expression, there is also a coded political significance insinuated in the images and texts to deliver political and social critique or moral lessons, to make political statements, and to draw attention to certain elements of society or the human condition (Chu 1993). This is because in its essence, the use of excremental language and imagery offers “the opportunity to shock the public by confronting it, often in a grossly explicit or hyperbolic way, with an aspect of human life that in Western culture has long been and continues to be taboo” (Chu 1993:41). For example, Traviès chose a scatological medium to deliver his political messages against his monarch Louis Phillipe precisely because he wanted them to be accessible to the broadest public (Weisberg 1993b) and such imagery ensured that “there was no need to be literate to know what was being said about power and exponents of power” (Candleman 1989:20). Similarly, the scatological themes present in South Park’s puerile flatulent characters Terrance and Phillip, and Mr Hankey the Christmas Poo, satirise American-Canadian relations and the commercialisation of Christmas respectively (Gardiner 2000) and along with other taboos are “(re)organized to highlight and destabilize normative cultural identification” (Gournelos 2009:143). Pierre Manzoni’s Merda dàrtista, in which the artist packed antiseptically sealed tins of his own excrement sold by weight at the price of gold, makes a statement about the commodification of art and its production, consumption and worth (Silk 1993:65). Ensor’s nineteenth century scatological imagery is believed to symbolise his personal rebellion against the ideals and norms of the Belgian society in which he lived (Canning 1993:48). Finally, perhaps the best known contemporary example is Andre Serrano’s controversial Piss Christ; a “deliberately provocative” juxtaposition (Fisher & Ramsay 2000:140) of crucifix, urine and possibly some of the artists blood (Young 2000) to provide a critique of the commercialisation of religion (Canning 1993:47; Bennett 2010; Casey 2000).
In the case study under study, scatological jokes were made using puns or plays on words, such as the suggestion of one recreational boater that instead of calling the smallest class of vessels in the legislation a small ship, the agency should designate a smaller class still called a “wee ship” (S3-1998). Journalists too could not resist the urge to participate in this base humour with the Sunday Mail’s boating columnist using puns and double-entendre throughout his articles:

They have been handed a problem some of the best boating minds in the US and Europe have been wrestling with for years. Here, the problem has been compounded by starting at the arse-end of the head (excuse the language, pun intend) (Keenan 1997d:140). According to the law, as of next Saturday every vessel 10m and over must have a holding tank for sewage. But the State Government still hasn’t got its act together. This is despite public and industry consultation earlier this year which convinced Queensland Transport the proposed regulation, to come into effect from January 1, wasn’t practical. The department has been pushing for a moratorium of the regulations but discussions were bogged down (pun intended) at the last minute. Now the poor old boatie doesn’t know where he or she stands (sits?). (Kennan 1999b:117)

Even the Minister responsible for introducing and enforce the legislation was not immune from making light of the policy in this way it to diffuse tension or to grab a headline:

I will resist all the puns that immediately spring to mind in relation to the subject because it is a very serious one…For those of us who venture out on the water occasionally—rivers, bays, et cetera—nothing is more important that wetting the line and catching a fish. But, to be quite honest, that is all we want to catch. (Lucas 2004:1444)

While this usage can be seen to be harmless and perhaps even helpful in breaking the ice, the vulgar and obscene usage can also be adopted in a deliberately provocative and aggressive manner. Suggesting the need for nappies for fish or dogs or the need for outhouses for cows might seem like a harmless contribution to the debate, but this patently absurd contribution is meant to undermine the legislation by inferring that it, too, is no less absurd that their suggestions. Boaters used this seemingly comedic language to ridicule and undermine the position of those involved in enforcing the legislation and the input of others in its development by suggesting that “While a number of human individuals are obsessed with the word pollution, perhaps in reality the obsession is based on such individuals having very badly pissed their own pants during childhood” (S70-1989).
Moves to make boaters retain and manage their own faeces started a metaphorical shit-fight, as evidenced by the threats of delivering to politicians’ doorsteps what they were being compelled to retain onboard their vessel for later disposal (image 8.4).

This vulgar language also embodied the angry expletives of recreational boaters and members of the public frustrated with government regulations that they felt had either gone too far or no far enough in ensuring the absence (or unintended presence) of physical shit from their lives: “Dear Sir...The fish also defecate directly in the sea, and have you ever seen a turtle shit?! They’d have to banned as well!” (M2-2004).

It wasn’t just the use of expletives that embodied this talk. Like weapons, their excremental language can be seen to be a kind of “verbal aggression…[through which] the symbol has acquired a force similar to the act” (Bates 1967:131) designed to undermine the legislation and to literally to tarnish it as shit.

One Maryborough yacht owner said that the situation was becoming comical. “From what I understand of the new legislation, if you drop your pants and squat over the side of your boat you are not breaking the law, but if you squat in a bucket on deck, and then empty that bucket over the side you could be fined,” he said. (Butt 2004:7)

Recreational boaters even adopted a self-effacing form of humour when they chose to comply with the legislation as shown in the article Come aboard for a poo cruise (Norm, Isobel & Pip 2005:15) in which they describe their compliance with the laws as “the megadump without a pump” that takes place on a “poo cruise” where invited passengers who
are “stink boaters and fart catchers alike” come aboard before “the valve is opened, the shout goes up and then we all get back to drinking, nibbling and talking nautical bullshit”.

Problematically they also negatively characterised that who chose to comply in a racist and offensive manner in a story entitled Terror Yacht Attack Stuns Queensland in The Coastal Passage (Norson 2005e:17) which tells the tale it was alleged that a “fleet of radical Muslim yachties” was incepted off the Queensland coast attempting to blow up the Great Barrier Reef with full holding tanks; “more explosive and certainly more odious than high level radiation...a fuel detonated, twenty megaton shit bomb!”. The “plot” was exposed as the terrorists were identified due to their beards which were identified during a routine flyover during prayers where “as low as our brave pilots fly over those bums we could see the caps on their teeth.” The xenophobic and racist connotation of the joke being that only those kinds of people would bother to have holding tanks and even then only for nefarious purposes. Such faecal denigration of the Other based on class or race characteristics is not uncommon and relies on implicit and explicit discourse which “infiltrates everyday language-use and common-sense mentalities” (Inglis 2002).

The implications of a lack of appropriate language to discuss the excremental

Scatological language, in whatever form it takes, is value-laden and rich in emotion. Whether participants in the policy process chose derisive humour, shocking images, aggressive taunts or circumlocutory language, their use of language was both deliberate and political. Based on the discursive choices presented in this case study “it would be wrong to conclude that excrement is discursively non-existent, but rather that it has become very deeply embedded within the construction of the subjective self, the organisation of space, and the presence of an over-arching threshold of repugnance and distaste” (Bradshaw & Canniford 2010:109). However, when faced with the limited choices employed in this case study, I find like Hadolt, that there “is no convenient language of shit” (1999:181) and am left pondering how good policy can be made about a subject that cannot be discussed and for which there is no accepted or acceptable language? I am sure that those involved in the policy process (as participants or policy officers) must have also keenly felt this frustration.
All speakers have a wealth of indirectness strategies to work with, including circumlocution; indirectly authored speech forms, such as proverbs, metaphors, riddles, tales, litotes and hyperbole; evasion; innuendo; pseudo-soliloquy (ostensibly talking to oneself); the use of intermediaries; and pronoun mismatches (Gaylan 1999). But the availability of these strategies varies depending on the context and rhetorical intent. Unlike many of the participants, recreational boaters had available to them a rhetorical arsenal of ways of talking about shit which they used to impressive persuasive effect. They did not restrict themselves to polite euphemistic or medical-clinical language (as other members of the community did) or technical scientific language (as government and an increasingly professional environmental lobby did). Instead, the as aggrieved citizens the boaters used a rhetorical range which ensured that they received prominent media exposure, particularly in the relative absence of an entertaining or provocative dissenting voice. The unspeakable subject matter and the boaters’ discursive approach ensured few others made public comment outside of incredulous but respectful ministerials and a limited number of public submissions. Despite their seemingly indefensible position, these boaters appeared to win the media war for quite some time, until the parochial NIMBY interests of community members and their elected local governments in the Pumicestone Passage area declared that enough was enough.

Policy making is a political enterprise. Media attention might get an issue on the policy agenda but this is no guarantee as to how the issue might be resolved. Unwittingly, the actions of recreational boaters and, even more importantly, their publicly stated attitudes toward the issue of indiscriminate and uncensored sewage discharges from their vessels was their undoing. As boaters became bolder and began to rely more on an angry, defensive and often offensive discourse, government patience and public support seemed to crumble. The legislation as it stands ostensibly regulates the discharge actions of even more boaters in a greater range of situations that it had originally.
Attending to the psycho-social factors

One of the key aspects of unspeakable problems is that due to the fact that they often deal with taboos there are high levels of concomitant psychosocial sensitivity. In our society, shit is absent, something that we can’t talk about. As a result, physical and discursive encounters with it result in a high degree of shame and disgust, because it is “is impregnated with morality and value judgements” (Åkesson 2003:7). It has been argued that as “negative states of mind shame and disgust can be deployed as powerful motivators” to induce desired behaviour (Arneson 2007:32). While it has been argued that shame in particular “can be an effective instrument to induce compliance with social norms and standards” (Arneson 2007:38), it is also noted that “it would be desirable for modern societies to…liberate its members from disabling shame regarding sexuality and the human body” (Arneson 2007:40). Disgust can help us understand and connect with our waste and ourselves because it “forces us to confront our bodily existence” (Meagher 2003:24), but that shame offers us very little on our road to sustainability and ethical practice.

Cortez (2005:21) insists “that our relationship to shit be an open one…[and] move past a culturally determined response that automatically lumps the scatological into those received categories that contribute to the further discursive, and hence material, distancing of shit”. It is this recognition that shit is more than just shit—but that it is also the social, discursive and practical expression of our relationship with it—that she advocates explaining that addressing shit through a shameless narrative is a way of “relating to and writing the body that attends precisely to what the social and intellectual technologies of an industrial sewer system most strenuously attempt to distance from cognition and perception” (Cortez 2005:14). As such the recreational boater as a shameless shitter should not feel shame for shitting, but rather guilt for being a selfish or unconcerned polluter (Nussbaum 2006:490). Hawkins and Muecke (2003:xvi) argue for an “ethics of responsibility” that makes us “open to the various responses and affects waste can initiative” and in doing so has the ability to “make us think about what we are doing”. The notion of the shameless shitter does not allow people to do whatever they want without care for others or the environmental consequences of their actions. Rather,
by taking shame out of the equation, we can talk about and find new solutions together, we can begin to focus on issues and not feelings of shame and disgust.

Some community-led sanitation efforts that seek to stop open defecation stress that an important part of the approach is to encourage people to look at (physically and metaphorically), talk about and deal with their shit—“no polite words of euphemism here” (Bongartz et al, 2010a:3). Indeed its aim is to explicitly talk about and make visible “the shit that is normally hidden beneath taboos and polite language…the local, crude word for shit is always used” (Bongartz et al, 2010b:29). Those advocating such initiatives suggest that facilitators “trigger feelings of acute embarrassment and/or disgust in people that invoke an immediate desire to stop open defecation” (Bwire 2010:92 & 96). Advocates of this approach strategically provoke the emotional triggers of shock, disgust, embarrassment, pride, self-respect and dignity. While there is some criticism that shame is an unethical way of creating change, it advocates argue that “the impulse for change comes from the emotions—the gut rather than the head, which conventional education programs try to appeal to” (Bongartz et al 2010b:33). What is important here is that they are really making people ashamed of their waste disposal practices, but not making them feel shame about discussing excremental matters. This is an important distinction. They are using shame in a positive and productive way to make people take responsibility for their actions. But at the same time they are seeking to release from the shame what they feel about their bodies and about talking about excremental matters.

It is confronting to be forced to look at and hold ourselves accountable for what we have produced. We accept state regulation of our waste because it affords us the luxury of not thinking or talking about it or taking responsibility for it. The luxury of being able to divorce ourselves from the waste we produce with the press of a button allows us a considerable conceptual distance from our excrement and from any environmental impacts of its disposal. In order to consider the positive potential of forcing encounters with shit I will turn to a discussion of World Toilet Day and its attempts to make the unspeakable visible, speakable and, indeed, celebrated.
World Toilet Day and the construction of the shitting citizen

As a response to the political and public reluctance to engage with sanitation issues, the World Toilet Organisation was founded to improve toilet and sanitation conditions worldwide and to encourage debate on sanitation issues. Through the World Toilet Organisation, founder Jack Sim set about making sanitation issues relevant and putting them front of mind for politicians, policy-makers, users and the general public. An example of the innovative approaches adopted by the World Toilet Organisation to promote sanitation issues include the introduction of the international Happy Toilet Program which recognises and rewards the provision of good quality sanitation infrastructure. The Happy Toilet Program is a star-grading initiative for public toilets which focuses on design, cleanliness, maintenance, effectiveness and overall user satisfaction. In Singapore, toilets that are awarded happy status are promoted through the Restroom Association Singapore website and an online LOO locator map. Toilets which meet the standards set by the Happy Toilet Program are presented placards which are prominently displayed within the toilet facilities and can be used as a promotional tool by the establishment who owns the toilets (Restroom Association Singapore 2008). The efforts of the World Toilet Organisation to improve sanitary conditions across the globe are also advanced through World Toilet Day.

World Toilet Day events are held around the world on 19 November each year to bring the unspeakable topic of sanitation to the attention of politicians, policy-makers and ordinary people around the world and to break “the silence about an embarrassing topic” (WTO, no date). World Toilet Day events often use visual and performance art to attract public attention and to promote key sanitation messages. For example, the issues associated with open defecation were promoted through the travelling exhibition Where would you hide? featuring twenty-six life-sized orange defecating silhouettes (Sanitation is Dignity n.d.) and the international Big Squat which saw participants around the world squat in public places for one minute (WTO n.d.).

In 2008, the Australian city of Brisbane hosted an open-air public art exhibition in the heart of its central business district to celebrate World Toilet Day. The art, featured in prominent locations across the busy pedestrian mall in Queen Street, attracted a great
deal of interest and surprise from passers-by. Some surreptitiously glanced at the art works as they hurried by. Others lingered to take a closer look while those beside them attempted to conceal their discomfort and embarrassment. The reason for the diverse reactions is that the art featured in this exhibition was one hundred toilet pedestals decorated to raise awareness of global sanitation issues (image 8.5).

By using scatological art to celebrate World Toilet Day 2008 the organisers of the One Hundred Toilet exhibition hoped to raise general awareness of sanitation issues and to inspire others to take action against poor sanitation by supporting organisations that deliver sanitation to developing countries such as WaterAid Australia and the World Toilet Organisation (Taylor 2008).

With the support of Engineers Without Borders and a number of other not-for-profit, government, university and business organisations and individual artists, one hundred new toilet pans were donated and decorated for display at the exhibition. The challenge to decorate the toilets was distributed through organisations such as the Queensland Environmental Activist Network Group and the Art Action Union who asked their members to “be funny, be serious, be gross, be active and aware” and to develop
“artwork centred around the toilet (aka. loo, crapper, shit-house, poo room, WC, outhouse, john, bathroom etc.) as a celebration of the ability to manage our personal waste in a systematic way” (AAU 2008).

That community groups, environmentalists and artists were intimately involved in the One Hundred Toilet exhibition is not surprising as these groups are often central in promoting important social and environmental issues. Indeed, “according to Kristeva, it is the artist, the writer and the analyst who embody the therapeutic possibility of speaking abjection” (Smith 1998:34). However, in this instance, although some have noted that politicians are often reluctant to be associated with sanitation (e.g. Mottram 2008; CourierMail 2008; McMullan 2008a), the federal Parliamentary Secretary for International Development Bob McMullan also embraced the opportunity to raise awareness of sanitation issues in the Asia-Pacific region by breaking the “toilet taboo” and personally launching the One Hundred Toilet exhibition (AusAid 2008a). News reports and media releases showed McMullan cheerfully having his picture taken alongside both the organisers and the decorated toilets (AusAid 2008b; McMullan 2008b). In his formal role and informal interactions he was well informed and clearly passionate about highlighting sanitation issues as both a social and environmental concern. Noting that approximately 75,000 children die every year from diarrhoea in South-East Asia and the Pacific alone McMullan remarked:

This exhibition is a timely reminder that more needs to be done to ensure dignity and health is accessible to all through good toilets and sustainable sanitation. Toilets are a very serious consideration in developing countries where hygiene can be the difference between life and death…Decent sanitation is also a fundamental prerequisite of gender equality (AusAid 2008a).

That a prominent federal politician, and non-traditional allies such as engineers, artists and environmentalists came together to promote sanitation issues on World Toilet Day is an incredible achievement and testament to the commitment of the organisers, particularly when the taboo subject matter is considered. However, the organisers recognised that while using scatological art was likely to attract media and public
attention it was also a bold move which had the potential to alienate the very public they hoped to influence.

It is no surprise that people are generally uncomfortable with the topic of sanitation, but what is unexpected is how many find unashamed reference to a piece of infrastructure as mundane as the toilet or an act that all living creatures engage in as socially and culturally inappropriate. Even the naming of World Toilet Day is seen as being somewhat controversial with Gurney (2009:1) opining in the *National Post* “ Couldn't they have called it Right to Hygiene Day?” as if this would lend a more dignified and appropriate tone to the important issues being highlighted. It would be tempting to suggest that the problem is more with Gurney’s personal fascination with the toilet than with the idea of World Toilet Day *per se*. However, there is clearly some truth in his contemplations which prompt him to suggest that the use of the word toilet ensures media coverage because “we’d never write about Hygiene Day or International Sanitation Day”. But as Gurney (2009:1) notes this attention can come at a price where the use of the word toilet ensures that “no one takes a good cause seriously”. Given society’s attitude toward excrement there may be some substance to his concerns but it also presents an interesting paradox where the same unspeakable word can act as both an enabler and a barrier.

Scatological art and the discussions that it invokes present a direct challenge to accepted notions of invisibility. However, it is important to note that this does not mean that there is no room for opening up discussions about sanitation. The success of the *One Hundred Toilet* exhibition and the willingness of a range different actors, activist, artist and politician alike to become engaged is living proof that “ideas about faeces and how they should be managed change historically, and are not fixed immutably forever” (Inglis 2002:209). What we need to do is find a way to create this change. This is what the *One Hundred Toilet* exhibition set out to achieve by putting shit unambiguously on show.

Bakhtin’s (1984) work on the carnivalesque qualities of excrement is important for understanding the approach to scatological art as political statement employed by the *One Hundred Toilet* exhibition. Bakhtin’s understanding of excrement through the politics
of carnival (Stallybrass & White 1986) emphasises a more positive and celebratory image of excrement and its subversive power (Cortez 2005:6). The brightly decorated toilets and their sometimes irreverent, audacious and at times confronting decorative themes invited a carnival atmosphere, as did their placement in the middle of a busy public thoroughfare during the lunch-time rush. Through the presentation and positioning of the art work, both the positive and dangerous elements of sanitation were unapologetically on display. A gleaming white line of undecorated toilet pedestals was juxtaposed against humorous entries calling for more dunny love and more confronting art works depicting shocking images including a faeces encrusted pacifier in a toilet bowl to draw attention to the implications of poor sanitation for children in developing countries.

It is important to remember that while the decorated toilet pedestals were clearly the visual cornerstone of the exhibition, its activist goals were supported by the distribution of provocative postcards and stickers promoting global sanitation issues. Even more than the disembodied toilet infrastructure that formed the visual foundation of the exhibition, these postcards and stickers featured representations of people that were directly associated with shitting; either in terms of engaging in or observing the act of defecation (image 8.6). This celebration of ‘shit on show’ is a direct denunciation of the incongruence, ridiculous denial and preposterous disconnect that something most people do at least once a day can only be used to challenge, shock or satirise. It is this common public denial of the body’s excretory capacity, as demonstrated through the toilet signage we employ in Western society, that formed the basis of art work the insanitation sticker distributed by the event organisers.

![Image 8.6: Insanitation sticker distributed at One hundred toilet exhibition 2008](image.jpg) © insanitation, used with permission
Rather than using the more obvious symbol of a toilet most Western toilet signage instead represents intended users through the use of an abstracted image of the human form using geometric shapes. This iconic signage is used to differentiate the toilet infrastructure to be used by men or women, and ‘gender-free’ disabled users but does not give any indication as to the intended purpose for entering the signed space. The explicit representation of actions associated with using a toilet are generally reserved for men and even then are used to indicate a space where only urinal facilities are provided (e.g. through the comic image of a urinating man (Ciochetto 2003:218)). By contrast, the insanitation sticker distributed at the One Hundred Toilet exhibition employs images which move beyond the traditional stylised representations of a standing man or woman to represent the presence of toilets to include the image of squatting person who can only be imagined to be defecating.

While this image is controversial and explicit, it is through this genderless defecating image one can begin to reconnect with the idea that we all shit. This image refuses to hide the act of defecation, instead choosing to use it as a social leveller, as something which we all share, a common humanity and animality. But is it enough to simply recognise that we all shit? Surely the environmental and social ambitions of organisations like the World Toilet Organisation requires that those attending the exhibition open their eyes not only to the global sanitation crisis by reflecting on society’s sanitation needs and desires but to also consciously reflect on the sustainability of their own personal toiletry practices.

World Toilet Day is about looking for openings through which to change attitudes, behaviour, and practices about sanitation at a local, global and personal level. By moving the problem of sanitation from simply being a public health or environmental problem to one which considers its cultural and social dimensions, we are reminded that the way we talk and think about waste has a strong relationship to the range of solutions that we can both conceive and enact. This understanding and acceptance of our own personal consumption, waste accumulation and disposal practices is the foundation for bringing about more conscientious, ethical and sustainable waste ‘management’ solutions (Hawkins 2006). Is there a place for scatological art to help to transform individuals into
citizens who have a conscience about the waste they and others produce and the way that it is managed?

Scatological art has the capacity to help us as individuals and as a society, to begin to acknowledge and embrace the destabilising presence of shit in our lives in a way that begins to “open up other ways of thinking about the social regulation of our relations with waste beyond command moralities” (Hawkins 2001:8). Inglis’ work shows us that acknowledging the disgust we feel toward excrement can help us to understand and change our reaction to it and the broader issue of sanitation. However, the shame that comes with engaging with excrement on a linguistic, social or practical level offers very little on the road to sustainability and improved sanitation outcomes.

Scatological art forces us to talk about excrement. Talking about excrement can help to develop a “nascent political self-consciousness” or “shamelessness” (Cortez 2005:1) which allows the freedom to question not only our attitudes towards the excremental but also to begin to question the practices, behaviours and infrastructure that serve to distance us from our excrement and forces us to act in a social and ecological vacuum, isolated from a knowledge or responsibility for the impact of our actions (Cortez 2005:21). In short, it is through talking more freely about shit and shitting that we can begin to recognise ourselves as citizens, who can begin to think and act for collective good rather than exclusively (Wolin 1982:21). Scatological art, such as that presented at the One Hundred Toilet exhibition, seeks to recreate participants as shitting citizens.6

However, getting people to accept or even discuss excremental issues can be problematic as demonstrated by the experience of the editors of a special edition of Postcolonial Studies devoted to the toilet. The call for papers for this special edition was met with a flood of responses, “the majority inappropriately condemnatory” (Dutton, Seth & Gandhi 2002:139) and questioning the seriousness and appropriateness of the topic. The editors recount their reaction of one of their colleagues who wrote:

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6 Or shittizens as one of my colleagues remarked on reading the draft of a paper (Grant-Smith 2010) exploring these issues.
What’s going on that this journal is so trivial and male. Men are fascinated by shit, it is a schoolboy thing, and a gay male thing. Are there not serious political issues in the world? I am completely staggered I must say. (Dutton, Seth & Gandhi 2002:139)

Although the editors had the courage to continue with the issue as planned, sadly rather than confront their detractors head on, they backed away from the topic in defence of their pure academic credentials claiming: “the truth is that ‘shit’, as it were, was never our principal focus…There were to our minds many complex, competing and divergent ‘uses’ of the toilet, and hence stories to be told about it” (Dutton, Seth & Gandhi 2002:139-140).

Their unfortunate, understandably less than bold, grasp back to stable, respectable material aspects of the topic reinforces the slippery, wanton nature of the unspeakable. But instead of apologising for bringing up the issue, they might have addressed detractors head on, for as Pickering (2010:39) so rightly notes: “As water becomes an increasingly precious global resource, the politics of human waste is a profoundly serious [issue]”. In a drought-stricken island continent like Australia the use of water-heavy flush toilets and their drainage into the ocean is indeed a serious political issue, as is any sanitation practice that has potential ecological or public health implications, such as the discharge of sewage from recreational vessels. Such important issues demand appropriate public deliberation and debate.

Morrison (2008:157) notes that:

The demonization and privatization of excrement can limit us and harm our planet. It is very simple: we should deal with our own shit, both figuratively and literally. That is the only ethical, moral, and indeed, logical course.

Whether in policy making or promoting sanitation issues, “excrement deserves, indeed demands a moral attention” (Morrison 2008:154). The presence of the scatological art helps to create a space where sanitation issues can be presented and discussed in a shameless way, for it is only through this shamelessness that we can begin to construct the idea of the shitting citizen; one who is simultaneously responsible for and responsive to managing the waste that we produce. It is only as shitting citizens that we can begin to
become open to acknowledging and beginning to understand our relationship with excrement and begin to “think about what we are doing” (Hawkins & Muecke 2003:xvi), and ultimately to change sanitation practices. Taking shame out of the equation means that we can talk about and find new sanitation solutions together as a society, thus moving from being individuals who deny our own excrement to becoming shitting citizens.

For the most part excrement is “unspeakable and unscriptable, outside the realm of official representation” (Anspaugh 1994:74) in Western culture. It is for this reason that scatological art has the power to make the personal political through an artistic lens. Scatological art can serve as a stimulus for discussion and change in both art and society at large (Weisberg 1993b:19). The increasing public acceptance of events such as World Toilet Day and the One Hundred Toilet exhibition is a step toward this place as it begins to chip away at people’s discomfort with the topic of excrement by making it a legitimate topic of political, personal, policy and artistic interest.

Shying away from speaking about taboo subjects, simply because they are taboo is as much an avoidance of responsibility (Sieber & Stanley 1998:55 in Horwood & Moon 2003:108) as our tendency to deny the body’s excretory capacity and the potential social and environmental impacts of this denial. Unlike Dutton, Seth and Gandhi’s (2002) foray into the toilet, excrement was, and could only be, the unequivocal focus of the One Hundred Toilet exhibition as it openly explored the transformative potential of the scatological based on its ability to address excrement directly and in a ‘shameless’ way (Cortez 2005). By basing the exhibition on the foundation of scatological art, the organisers embraced the idea that if we want to move forward to a position where we can begin to imagine new ways to deal with sanitation issues “only a new coprophilic style can save us” (Gunn 2006:90); one which allows the open expression of ideas, lifts taboos surrounding these issues and demonstrates that excrement is a serious field of study (Weisberg 1993b:18) and of artistic endeavour.
Scatological art has the power to make public what was once private and can offer a way to manage and over time eliminate the shame associated with engaging with excremental ideas. Scatological art can provide the basis for turning it into something more productive by finding new ways of connecting with it and making it once again spoken about and speakable. The power of adopting scatological art as activism is that it has the potential to bring together diverse interests for a common cause, interests that normally would not be able to share a political space on such issues. The One Hundred Toilet exhibition found engineers working with public relations people and politicians and artists to raise awareness of sanitation issues. This unconventional and interdisciplinary approach was able to harness the value of scatological art to make a profound political statement.

The controversy associated with scatological art may well be one of its strengths. Confronting as they may be, as McMullan (2008a) notes “efforts like these will keep people talking about the need for improved sanitation” which is more than half the battle in raising awareness of unspeakable topics like sanitation.

In Civilization and its Discontents Freud (2004) warns us that it is dangerous to repress thoughts of waste, or in his words “unthinking waste”. As shown by the success of World Toilet Day in raising awareness of sanitation issues the political aims of using scatological art to progress sanitation aims through ‘shit on show’ can contribute to the construction of the shitting citizen; one who is simultaneously responsible for and responsive to managing the waste that they produce and recognising and responding to broader sanitation issues.

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7 Based on the success of the One Hundred Toilet exhibition, scatological art was once again used to celebrate World Toilet Day in 2009. Rowan Barber, one of the organisers of the 2008 One Hundred Toilet exhibition, celebrated “having a designated place to poo” by fasting, meditating and praying while symbolically sitting silently on a toilet pedestal in the Brisbane central business district (Barber personal communication 2009). While this scatological performance art received notably less media attention than the One Hundred Toilet exhibition, its quiet personal approach continues to contribute to breaking down taboos about sanitation and getting people talking about the issue.
Motoloch (2010:20) notes that:

The loo teaches us about silence…[and] shows the insidious consequence of bracketing off certain truths as unmentionables…Emperors of all kinds…have no clothes. Failure to call it out, make it visible and discuss the implications perpetuates disadvantage, danger, and maybe even catastrophe.

World Toilet Day challenged norms and met Eden’s (1996:196) call that “contestation should be wide enough to include symbolic protests drawing on emotional, artistic, moral and other forms of expression as part of people’s immediate reaction to their environment”. And as the One Hundred Toilet exhibition showed us “[c]onfronting the taboos associated with waste is facing up to the truth, to dirt and ugliness, and it is an essential freeing act” (Engler 2004:9).

Conclusion

An immediate response like disgust “has something to say about the ways that a person inhabits the world” (Meagher 2003:29). Harnessed it has the potential to makes us all more personally responsible for the decisions that we make – even the ones that we don’t think about. Combining this with a certain amount of shamelessness gives us the power to discuss these matters and to bring them to the fore for inspection. As Avery notes (1997:196) “it is essential to see the things and people who are primarily unseen and banished to the periphery of our social graciousness”.

Simon Williams (1998:61) notes that:

In so far as the body tends to disappear when functioning unproblematically, it seizes our attention most strongly at times of dysfunction. We become most aware of our bodies, in other words, when our spontaneous, unreflective relationship to them is disrupted in some way…A shift in our mode of bodily apprehension is therefore effected, from the tacit to the explicit, from the pre-objective to the objective, from the taken-for-granted to the problematic.
The same applies to a dysfunctional sewer or being forced to hold sewage onboard a vessel. Rather than rejecting disgust outright we need to be aware of it and identify it so that we can make selective decisions about when it should be applied and how. Dan Kahan (1998:1657) notes that ignoring the impact of disgust on policy making and the law:

…is ultimately self-defeating. Ignoring disgust does nothing to counteract the force that that sentiment exerts over our moral imaginations…In short, the hear-no-, see-no-, speak-no-disgust strategy makes theory [and the law] politically impotent as well as morally obtuse.

It is “good to be forced to confront our own deepest emotions, and it is right that we should do so before rushing, as many have done on occasion, to legal judgment” (Archard 2008:320). Or indeed to making policy. This is especially true in policy-making, particular when dealing with unspeakable subjects. The consultation process should allow these emotions to take centre stage and to become central figures in the discussion so that they can be acknowledged and addressed rather than avoided and buried. For if we do not allow them to be acknowledged they do not go away but do take away any chance of sensible dialogue.
I might say in passing that Australia has at least made some political if not physical progress on the matter of sewerage. A few years ago it was a subject for some derision when I suggested that this was a proper matter for a national Parliament...I have an entertaining file of editorials from the Sydney Morning Herald from 1967 onwards which show how that august journal has progressed from amused contempt to enthusiastic endorsement of the position that so vulgar a matter is properly a national question.

Gough Whitlam, John Curtin Memorial Speech (1972)

CHAPTER NINE

Conclusion

Introduction

The factors influencing regulatory and individual decisions in the management of human faeces are wide ranging and complex. However, as I have shown in the case study presented in this thesis, it is largely the discursive and symbolic aspects which differentiate this policy problem from others, and which potentially constrain the opportunities for significant practical policy change. Any policy process that fails to adequately consider the unspeakable and abject quality of the faecal, particularly its symbolic and discursive dimensions, and the significance of these to its construction as both a wicked problem and an unspeakable problem are doomed to failure.

There is an unspoken acceptance that it is easier to discuss the material aspects of sewage regulation—the technology, infrastructure and organisation of sewers and sewerage management systems—than to discuss intimate ablutions practices or attitudes toward the sewage waste itself. As Hawkins (2004) notes, the body and intimate waste management practices are routinely written out of stories about waste management and unreflectively (and, I would contend, unreflectingly) replaced by a story about pipes or treatment regimes. So, too, the excrement itself is omitted or at least sanitised and, as a consequence, our reactions to it hidden behind a technical rhetoric of objectivity and an affected and disingenuous pretence of psychological neutrality. The result is an unbalanced focus on the materiality of waste in terms of its infrastructural and other
physical elements, with scant attention paid to its social, cultural, moral, ethical, political and discursive dimensions.

**Theorising the unspeakable problem**

In this thesis I conceived and defined the idea of the unspeakable policy problem—a wicked problem that is also characterised by high levels of psychosocial sensitivity and verbal proscription. I suggested that unspeakable nature of such problems makes them particularly problematic within rational deliberative processes because they are quite literally issues that we cannot or will not talk about. Due to its taboo nature and inherent unspeakability I argued that the regulation of excrement was an appropriate and apposite expression of the idea of an unspeakable policy problem.

Cortez (2005:13) underscores the importance of “knowing the story of our shit” as the first step toward “an ecocritical reading of the scatological...[which] sees shit as a familiar and knowable part of symbolic systems”. Based on Rittel and Webber’s (1973) understanding of wicked problems, I showed that regulation of the disposal of human faeces is a wicked policy problem occurring at the intersection of: complexity of elements and interdependencies; uncertainty of knowledge, risks, consequences and changing patterns; and value divergence. I went further, suggesting that as a policy problem the regulation of sewage may be beyond wicked, using a socio-historical analysis of the terrestrial regulation of sewage disposal, based on an expansion of Allen’s (1903) sanitation periods. I also discussed “the historic variability and situational contingency of the problems that have seemed appropriate to be governed, the sites within which these problems come to be defined and delimited, and the diversity of authorities that cab been involved in more or less rationalized attempts to address them ” (Rose 2000:322) within the field of sanitation. I discussed how shifting discourses, economic, environmental and political forces converged to make “shit thinkable as a public problem[,]...unthinkable as a private secret” (Hawkins 2006:50) and unspeakable as a policy problem. No longer openly spoken of I documented the shameful impacts of the closeting of all things scatological in which shit became a publicly indiscreet topic and how, paradoxically, this unspeakability also worked to make shit a visible and discursive object of political attention and political conflict.
The few works which have considered contemporary sewage management policies and practices\(^1\) present a way of looking at modern sewerage debates that departs from and critiques the more common accounts of engineering and sanitation success, which depict sewage regulation not only as a tame problem but largely a solved one. Their focus, on institutional and process inadequacies and the triumph of techno-centric paradigms in policy-making and planning, highlights the reality that the definition of the problem and proposals for its solution present more than mere technical problems. Collectively, they present a compelling argument for the need to move away from a one-eyed focus on the technical elements of sewage management, to one that also considers its less tangible dimensions, noting that processes of sewage regulation are “sites of political and social conflict as well as products of historic decisions about sewage disposal, changing social values, and environmental conditions” (Keeling 2004a:70). However, a critique that could be made of that work is that it tends to overemphasise the material aspects of sewage regulation and to have an overriding focus on sewerage systems—institutions and infrastructure—not the actual sewage waste itself. While I am not suggesting that the work necessarily needs to place excrement at the forefront of their analysis, its relative absence results in a situation where their findings could almost be equally applied to engineering decisions around a number of other contemporary infrastructure issues focussing on the environmental impacts of any of a number of chemical or industrial pollutants.\(^2\)

When I commenced this research a review of the Australian literature on sewage policy controversies would invariably call up the work of Sharon Beder and little else. I cannot deny the importance of her work, however, I felt that it told only part of the story of what was going on. Her analysis of engineering decision-making for sewerage systems did not sufficiently focus its gaze on the stuff of the sewers in a way that explained decision-making about and responses to this unspeakable stuff. I supported her arguments that technology is socially constructed and that the technical cannot be separated from the social (Beder 1989b), however, it wasn’t until, in a moment of frustration, I used the

\(^1\) For example, see Beder 1989a,b etc.; Lewis 1995; Keeling 2004a,b.

\(^2\) For example, in the case of Beder’s work, in many respects it was the high levels of organochlorides and other pollutants in the sewage discharges that were more of a focus than the excrement itself which was considered to more of vector for the ‘real’ pollutant or problem.
unorthodox search parameters shit and policy and I stumbled upon the piece of work that would both change the trajectory and shape the focus of my research—Gay Hawkins’s *Shit in Public* (2004). This piece and Hawkins’ (2006) subsequent *Ethics of Waste* put the unspeakable forward in a way that others had not previously done. Shit was undeniably front and centre in her considerations. My approach to understanding the unspeakable policy problem likewise placed shit at the forefront of my analysis in which I sought to unpack the symbolic, practical and material aspects of the regulation of human faeces as an unspeakable problem.

Inglis’ *modern mode of excretion* provided a useful framework for exploring and articulating the foundations of its high degree of psychosocial sensitivity and verbal proscription. Kristeva’s abject and Douglas’ idea of pollution as matter out of place was instrumental in theorizing the spatial, symbolic and discursive aspects of the regulation of human faeces as an unspeakable problem. These ideas were applied to contemporary contexts—the construction of ocean sewerage outfalls, recycled water proposals and the regulation of sewage discharges from recreational vessels—to position the management of human faeces as an unspeakable problem and to provide a contextual and theoretical basis for understanding the case study.

**Key findings of the research**

As a paradigmatic unspeakable problem, this research focussed on a case study of the controversial regulation of sewage discharges from recreational vessels to understand what happens when unspeakable problems are made the focus of public policy and how they might affect policy processes, participation and outcomes. The aim of this research was achieved by addressing three research questions:

1. What happens when the unspeakable is made the subject of policy making?
2. In what ways is the unspeakable discussed in such policy processes?
3. How might different ways of talking about such problems impact on policy making and our relationship[s] with the unspeakable?
The methodology used to answer these questions applied interpretive policy analysis and critical discourse analysis to interrogate a case study of the management of human faeces onboard recreational vessels as a paradigmatic case of an unspeakable policy problem.

**What happened? Understanding the impact of the unspeakable on process**

I used a case study to provide a detailed understanding of whether, and if so in what ways, unspeakable problems impact on policy making outcomes and participation. I developed this case study through the analysis of: interviews with policy officers; key government texts including consultation and policy texts and Hansard records; solicited submissions in the form of public submissions; and unsolicited comment in the form of media reports, boating club newsletters and ministerials.

Through the provisions contained in the *Transport Operations (Marine Pollution) Act 1995* [TOMPA], Queensland has the most comprehensive policy regime for managing sewage discharges from recreational vessels in Australia. This chapter presented an account of the controversial policy journey to develop and enforce these laws. Mirroring the land-based findings presented earlier in the thesis, this case study demonstrated that policy approaches to managing vessel-sourced sewage focus on infrastructure solutions, with desired changes in behaviour and disposal practices tied to their use. I recorded the high degree of conflict that accompanied the development and subsequent introduction of changes to the TOMPA’s sewage provisions.

My chosen case study, with its focus on the regulation of human faeces, provided a unique opportunity to focus on the unspeakable in policy-making because “[d]irt rarely enters the political arena so obviously, and takes up such a central role both as a disputed symbolic domain and as a means of dispute” (Hadolt 1999:194). A boat is like a microcosm of land-based life where every action is exaggerated, magnified and infinitely observable within a finite heterotopic space. Because land-based ideas, micro-practices and material/physical objects are transplanted to the vessel environment, we have the opportunity to interrogate them in a way that we might not when on land. Focussing this research on the vessel allowed me to gain insight into “this very difficult and emotive question” (S133-1998) which was demonstrated in a deliberate campaign by recreational boaters to
undermine attempts to regulate their sewage disposal practices and, despite significant amendments to the law and considerable concessions to improve acceptance by the recreational boating community, it still appears as though there will be limited compliance with the laws by recreational boaters.

The case study also demonstrated an almost deliberate effort by policy makers to avoid dealing with the emotions associated with vessel-sourced sewage disposal practices, as if these were simply secondary considerations to be changed with appropriate information, education or prosecutory coercion. This is despite the importance of symbolic understandings of excrement that appeared to be integral to boaters’ responses to the proposals.

When considering the unspeakable, perhaps who speaks is as important as what is said. While an array of stakeholders, from a range of geographical and occupational groups, were targeted in the policy process under study, only a small number of public submissions were provided by women. This domination by men in policy making is not uncommon. As a result, to a reasonable extent this research analysed and explored the views of those already best represented in policy-making, white middle-class males (Sandercock & Berry 1983).

The dominance of men in the sample is also likely to have occurred because men are estimated to make up the majority of the recreational boating fleet in Queensland (MSQ 2008c:8). Other studies into the sewage disposal and other practices of boaters have also found that their respondents were limited to a predominantly male population. However, part of the reason for this is that citizenship rests on “implicit assumptions of the citizen as male, white, middle class, heterosexual and of working age” (Twigg

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3 For example, Baasel-Tillis & Tucker-Carver (1998:11) found that 85% of respondents to their random survey regarding controversial issues in marine management were men. Similarly 97% of respondents to Cottrell’s (2003) survey of recreational boaters were male. The majority of participants (79.4%) in Miller and Pikora’s (2008) Australian study into alcohol consumption among recreational boaters were men. Carolin Funck’s (2002:9) research into marine sports in Japan also found that 100% of the respondents to surveys by the leading Japanese sailing magazine Kaji were male.
2000:434). As *the* citizen they are most often consulted about what to do about the behaviour and actions of *others*.

Despite their dominance in public life “men are invisible to themselves” (Forbes 2002:273). As such, despite the fact that boating (and for that matter most aquatic leisure) is a “primary site for masculinisation because of its inherent risk taking”, few studies have looked at it as a gendered activity (Moran 2011:20) precisely because it is undertaken almost exclusively by men. Few studies explicitly focus on heterosexual men and “by and large…there is no geographical discussion of heterosexual men in the private spaces of toilets/bathrooms” (Longhurst 2008:391), with the notable exception of Longhurst’s own excellent work. As a result, the predominantly white middle-class heterosexual men that comprise the recreational boating cohort are unaccustomed to being the subject of public gaze and scrutiny.

As such my work did not focus on people who are commonly regarded as abject or Other (such as prostitutes), nor does it focus on locations that are generally regarded as public abject places such as slums. Instead, it took as its focus people and places generally regarded as private, respectable and clean. Longhurst (2001, 2008) and Grosz (1994) both note that men’s bodily fluids are an under-examined topic, and this case study provided an opportunity to consider the complexities of masculinity and the unspeakable as: “far fresher insights can be gained by reading the male body through the window of its vulnerabilities rather than the dense armour of its power” (Bordo 1993:697).

**What was said? Understanding the impact of the unspeakable on outcomes**

When sensitive issues need to be addressed, most people display an unwillingness to speak their mind, electing instead to keep silent about their true feelings and preferring to say only uncontentious, politically correct things due to fear and distrust (Ng & Liang 2005). In policy processes it is, therefore, difficult to get participants, particularly those who are the subject/object of proposed policies, to talk honestly and openly about issues, much less for policy officers to begin uncover deeper meanings and constructing shared meanings.
White (1994) suggests that traditionally policy studies have uncritically accepted existing preferences in a society and have tended to focus on the means for accomplishing these, rather than on the content of these preferences or of the policy goals because they are unable, and perhaps unwilling, to deal with values. “As individuals try to understand and interpret their situations, they construct meanings or decide what events mean, and then respond to these social constructions” (White 1994:512).

Critical discourse analysis “emphasizes that value questions have to be explicitly included in analysis” (White 1994:512) and allows us to understand the conditions behind a specific policy problem, and that the essence of that problem and its resolution lie in its assumptions. It is these very assumptions that enable the existence of the problem in the first place. Making these assumptions explicit allows us to view the problem from a higher stance, and to gain a comprehensive view of the problem and ourselves in relation to that problem.

In modern policy-making processes, participants and policy-makers alike are expected to keep emotions out of decisions and to limit decision-making data to the facts rather than subjective ideas, which are rejected as irrational and, as a consequence, baseless. This overt and deliberate focus on the objective facts, an expectation that people and policy makers will keep their emotions out of policy processes, and a disregard for the symbolic foundations of our behaviours fails to recognise that people are social beings, and that values, mores and emotion are, in fact, the foundation upon which policy and the law is built (Nussbaum 2004).

This ideal view of policy making sees all places as being treated equally by law. As a result, policies which are deemed appropriate in one location are often taken to be appropriate and effortless to translate to another. My research considers the implications of the application of land-based sewage management policy and practices to a ship-based environment, and considers the implications and challenges of this approach by outlining, through the use of a case study, what happens in contemporary policy-making processes when common rules are sought to be applied to a heterotopic environment.
Just as we saw for land-based sewage regulation approaches, policies for managing ship-sourced sewage pollution have a significantly discursive character, which includes narratives of past and present issues, problems of regulation, and their solution. This includes particular understandings of marine pollution, and the place of vessels and sewage within these understandings. But this situation is further complicated by the fact that the regulation of sewage discharges from vessels is controversial, so there is a proliferation of strategies, discourses and narratives (some more dominant that others). In highlighting the high degree of dissent and conflict that accompanied the policy process and the introduction of the laws I also demonstrated that although as a general rule excremental matters are little discussed in public, when forced into a policy making process they can be extremely rhetorically productive.

Certainly in this case study shit was the subject of uncontained discussion in both the recreational boating presses and the general print media; like Foucault’s musings on sex, shit as something not to be spoken about was discussed in great scatological detail through the contestation of policy changes. Like Vidali (2010), La Com (2007) and countless others I found that although it is claimed that excremental matters are little discussed in public, rhetorical situations, like policy consultations, commonly arise that either casually invite or explicitly demand that they are discussed.

As such scatological topics can be rhetorically prolific in much the same way Foucault identified for sex; rather than silencing discussion can lead to a proliferation of specific institutional discourses associated with it. Foucault (2005) argues that the effect of this institutionalised and rational discourse resulted in an increasing encroachment of state law into the private realm. A similar shift in the increasing regulation of private waste is observed by Laporte (2002) who demonstrated how the forced privatisation of shit made it become “a political object through the process of making it an individual or private responsibility, making its producers legal proprietors” (Hawkins 2006:52) in much the same way that recreational boaters were forced to own their waste in this case. This

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4 Vidali (2012) and La Com (2007) both researched gastrointestinal disorders.
increasing regulation, at least in so far as land-based sewage management is concerned, has become an almost invisible and unquestioned part of our daily ablutions rituals. As Gay Hawkins (2006:46) notes “there’s private waste that is nobody’s business but ours, and there’s public waste that is the responsibility of government”; but recreational boaters’ waste falls somewhere in the space between, and by virtue of its liminal position becomes all the more observable and observed. As a result, claims about shit being horrifying, taboo, unspeakable actually work to make it visible and an object of public attention and political conflict. Chapter 7 in particular illustrates the paradox of how rendering something unspeakable, horrifying or taboo actually involves enormous levels of discursive activity of different varieties including: scientific, policy, affective and scatological.

In addition to its material consequences, the regulation of sewage disposal from boats is more than just regulating where boaters may and may not legally dispose of sewage waste and by what means. Instead, it has symbolic and practice implications which are firmly rooted in ideas of morality, pollution and freedom, and founded on power, knowledge and control revealed in, and as, discourse. I distilled the elements of the case study that could be considered to be common across other policy processes focussed on regulating recreational boating activities. This analysis showed that recreational boaters tend to rely on a reasonably consistent set of rhetorical and claims-making strategies to resist the imposition of regulations, to acquire legitimacy, and to externalise responsibility and blame. I argued that this set of claims is founded on a narrative of boaters and boating that is based on ideas of freedom, resistance and control (both their own control and attempted controls by others), and grounded in the idea of the boat as an ungovernable heterotopic space. The legislative attempts to manage the discharge of ship-sourced sewage did more than simply require the installation of holding tanks onboard vessels or regulate where boaters could and could not legally dispose of sewage waste and by what means. Instead, given the heterotopia it was to be applied to, it also had symbolic and practice implications which are firmly rooted in ideas of freedom, resistance and control. Because these claims were presented in a rational manner, in line with the rational view of policy making, this set of claims is generally the focus of both policy makers and participants.
Foucault (2005:45) remarks on the “recognised necessity of overcoming this hesitation” to speak of the unspeakable. However, Twigg (2006:160) suggests that the reluctance to talk about shit derives partly “from a general reticence about excretion, but it gains greater force from the sexualisation, mainly by men, of excretory functions, their own and others”. Having their bodies policed and being subjected to laws which govern their bodies is both threatening and feminising. As Laporte (2002:29) notes:

to touch, even lightly, on the relationship of a subject to his shit, is to modify not only that subject’s relationship to the totality of the body, but his very relationship to the world and to those representations that he constructs of his situation in society.⁵

Exposing and revealing the repressed can disrupt norms and expose their contingency. Bhaskar notes that changing relations to shit is not simply an inexorable denial and repression but rather is a complex ordering and exploitation of its negative attributes; “so, panic in the face of shit isn’t simply instinctual or personal. Shit is out and out political” (2006:2337). How did all the speaking about shit as an object of policy making transform policy frameworks and practice? Mary Douglas (2002:14) notes than from an anthropological standpoint the “polluting person is always in the wrong…pollution can be committed intentionally, but intention is irrelevant to its effect”. However, from a governance perspective we can observe that:

Every polluter wants to keep polluting, as long as it does not cost him anything. Every polluter will claim that his pollution is unavoidable. Who gets away with it depends not on real costs but on politics. (Freidman 1995:56)

Although the laws regulating sewage changed significantly, vacillating between more prescriptive and more performance-based legislative frameworks and more tightly regulated and more self-regulated enforcement approaches, shit itself was not openly discussed. And although recreational boaters raised a range of concerns, the government, and in this I include myself, was too dismissive of their embodied concerns. The

⁵ This is particularly true for men who are supposed to be above their embodiment (Cregan 2006:176). Men are accustomed to a greater degree of toileting freedom than women. For instance, men often have free use of public toilet facilities even when women have to pay which Twigg (2006:159) suggests perhaps reflects “a reality that unless they are accommodated, they will urinate in the streets”. In this case study, recreational boaters certainly threatened to exercise this freedom off their vessels.
unspeakability of shit—even named by its sanitised, disembodied and euphemistic moniker ship-sourced sewage—did affect the way that recreational boaters could present their concerns and also affected how they were received. But, should this new found understanding of the reasons for the recreational boaters’ dissent change the policy requiring them to manage their sewage wastes differently? Probably not, but it should change the basis for the negotiation and its terms. An early understanding that the areas of permissible discharge was not the root problem may have resulted in legislation that less confusing and complicated but may not necessarily have had any positive impact on compliance or environmental outcomes. Likewise, while a recognition that recreational boaters’ simply wanted to mirror land-based flush and forget disposal practices may not have significantly changed the legislative outcome in the boaters’ favour it may have changed the terms of the political and consultative negotiations and may have resulted in a significantly shorter and less painful period of legislative reform even if the result was the same—recreational boaters asserting their perceived freedom to defecate wherever they like no matter what the policy might state.

This case study demonstrates the difficulties in policing an elusive and floating pollution of boaters and waste matter. However, it particularly highlights the ways in which women’s bodies are problematised as “positioned as objects…requiring regulation, discipline and management” (2003:40) and the extent to which the unspeakable subject matter both influences and reinforces such problematisation. It also highlights the difficulties associated with addressing the unspeakable in policy making and the temptation for policy processes to attempt to force out the less palatable, messy or unacceptable matters in favour of the technical, clean and orderly.

Focussing on the claims-making strategies of recreational boaters to resist the imposition of laws to regulate their sewage discharge practices, I considered the extent to which the presence of excrement as the focal point of the policy process may have further inflamed the very difficult and emotive question of how to manage boaters’ sewage wastes. I focussed specifically on those aspects of the case study that might be considered to be related to its unspeakable focus. These unspeakable elements are generally considered to be irrational, emotional and private matters that are, or at least should be, considered to
be outside the official policy process. I considered the possible impact of these unspeakable elements on participation and policy outcomes, noting that their foundation in disgust makes them illegitimate and often a last resort strategy of a frustrated population. I argued that this manifests as a number of aspects which are present in unspeakable policy problems, and are based on an embodied aspect that attempts to regulate bodies in a space which does not treat all bodies as equal, and sees certain bodies as more out of place and requiring management or containment.

**What could be different? The transformative potential of the unspeakable**

White (1994:512) believes that applying discourse analysis “is not only important for comparing views and expanding one’s perspective…it also allows people to critically reflect on each other’s views…examine their preferences, where they come from, and how they can be changed”. Rather than focussing on its negative aspects, I explored the transformative potential of the abject and found that this transformation must be based on our ability to address the unspeakable and to discuss it in a shameless way (Cortez 2005). My work is a step toward this place for, as Ralston Saul (1995:2) enjoins: “change can only come only through what will seem at first to be outrageous statements, provocation and a stubborn refusal to accept the smooth, calm, controlling formulae of conventional wisdom”.

Jacobs (1999:210) notes that “the day-to-day pressures that confront [policy] practitioners make it all the more difficult to find opportunities to reflect critically on the nature of political activity”. I have been thinking about this case study and associated issues for more than a decade. As a professional public servant my research has shaped, and continues to shape, my practice. It is my intention that my research may assist policy-makers and consultation practitioners, like myself, to better understand the policy process in a way that would “eventually transform not only their practice, but also the ways in which they understood themselves in the process” (Sarraub 2004:98). As practitioners we need to recognise the impact of the way policy problems are framed, and those that are unspeakable demand special, considered and reflective attention.
Colebatch (2005:19) believes that idea of the policy cycle, discussed in Chapter 1, devalues the experience of public servants whose policy-making experiences do not align with it because “the instrumental account has become the standard against which all other accounts are judged”. The abstract ideal of the policy cycle makes me strive to have something practical for my fellow policy officers to take away and use that reflects their lived professional experience, yet also gives them something to reflect upon to improve policy making practice. Often, policy analysis tends to overlook the importance of the subject matter. It is seen as important for providing a context for the analysis but not integral for understanding what happened in the policy process. When I commenced my research I was originally interested power relationships in policy-making related consultation processes. I selected the ship-sourced sewage case study because it presented a research site with a prolonged policy-making process, multiple consultation phases and a high degree of conflict between stakeholders. The actual subject matter of the policy process seemed at first to be incidental or at most coincidental. However, preliminary data analysis revealed that the unspeakable subject hidden below the waterline of the policy problem in the case study was integral to understanding what was happening, what was said and what could be different i.e. how can you recognise, analyse and respond to an issue that you cannot speak about. On recognising this, my research became a story of the unspeakable in policy-making and the aim of my research shifted to consider how unspeakable policy problems impact on policy-making process.

Many feminists believe that the best kind of research changes the researcher. Through this research I have found new ways to approach policy-making processes and to think about those who participate. I moved from a position that saw the recreational boaters’ position as indefensible and unnecessarily antagonistic and irresponsible, to a position where I began to understand their motives and meanings and to empathise with their concerns, even if I still disagreed with them. Mukhopadhyay (2006:227) argues that reconsidering shit and shitting practices necessarily “means engaging with popular or subaltern practices as ethico-political responses and reflecting on their sources of authority rather than simply denigrating them from the vantage point of some absolute wisdom”. It is only from this position that dialogue and understanding can begin.
My immediate (albeit early) involvement in the policy process under study makes this research in some respects a real-life account of policy-making in action, as this position afforded me a more intimate view of the policy-making and consultation process than I could have obtained from any other perspective. Intriguingly, this sits in interesting juxtaposition with the narrative, written some eight years later, that commenced this thesis. During my involvement with the process, I regarded sewage as an abstract concept that was merely an issue in need of policy solution. I did not feel personally implicated, nor did I feel my privacy had been challenged. Instead, it was “an environmental problem, a failure of government” (Hawkins 2006:45) to be remedied by appropriate policy. However, when personally confronted with it in my own front yard I responded in much the same way that the recreational boaters did—with alarm, disgust and embarrassment. I attempted to distance myself from it physically and discursively, afraid that I might somehow become linked with the stink long after what it represented had been safely returned underground to where it belonged. Despite my feminism, I sent my husband to deal with the plumber, further distancing myself from the problem and any implication that I was involved in its production.

As Archard (2008:320) notes: “It is good to be forced to confront our own deepest emotions, and it is right that we should do so before rushing, as many have done on occasion, to legal judgment”. This is especially true in policy-making, particular when dealing with unspeakable subjects. The consultation process should allow these emotions, feelings and values to become central figures in the discussion so that they can be acknowledged and addressed rather than avoided and buried. For it we do not allow them to acknowledge them they do not go away but simply take any chance of productive dialogue and negotiation with them.

The approach I advocate in this thesis gives the policy-maker a broader, and more importantly, deeper understanding of what is going on. It rejects, or at least forces one to question, the kneejerk and quite understandable reaction that recreational boaters are simply self-interested, irresponsible and difficult. Instead, by seeking to understand their particular meanings, values, feelings and understandings, policy-makers will be in a better position to explore and find new policy solutions. Differences of opinion “derive from
different experiences, backgrounds, and so forth, and...these represent different ways of seeing rather than groundless obstinacy or any of the myriad ways people have of dismissing opposing views” (Yanow 2000:21). Such an approach would allow policy-makers to foster discussions on unspeakable issues which honour “the reality of entrenched viewpoints, while nonetheless seeking engaged...debate” (Yanow 2000:21). Jacobs (1999:211) agrees that adopting methods like discourse analysis “can assist policy-makers in reconceptualising their approach to problems and, most importantly, to understand why certain issues come to be perceived as ‘problems’ ”. Understanding policy making is as much a cultural phenomenon as much as a regulatory or legal one, because it challenges us to treat the subject with even greater reflection (Bobetz 1995:751).

Virginia Woolf (in Cox 1995:3) noted that:

It would be a thousand pities if women wrote like men...for if two sexes are quite inadequate, considering the variety and vastness of the world, how should we manage with only one?...For if an explorer should come back with words of other sexes looking through the branches of other trees at other skies, nothing should be of greater service to humanity.

The same is true for policy making. Silencing different voices and different ways of voicing them does not serve good policy making, nor does it serve the diversity of humanity. This means finding spaces and places on the policy for journey for all who wish to contribute (and finding ways to speak for those who can’t). As Cox (1995:4) noted in her 1995 Boyer Lecture: “We need the widest trawl of views to make the best decisions; the issue is not so much equity but effective policy-making”. Indeed, “[a]ny decision-making process must create a culture of responsible discussion” (Cox 1995:62)

In this thesis, I presented one step toward the point where we have a conscience about the waste we produce and the way that it is managed by acknowledging the presence of shit in our lives—linguistically, socially and practically—through a transformative politics of difference which shifts the emphasis away from self-interest to considering the interests of others and the community, society and environment as a whole. This transformation would contribute to “the project of building citizens who are not only
responsive to the views and concerns of other groups but also able to reflect on their own particular and partial perspective” (Cameron & Grant-Smith 2005:22) and could allow us to begin to re-recognise our own bodies and the shit they produce and to accept responsibility for managing that which we produce.

Returning to the personal story that I used to start this thesis, it is difficult to escape the central message that gives the story its emotive power. The plumbing lines are supposed to transfer excrement directly from the inside of the house to the sewer where it mixes with the wastes of others to become de-identified and unable to traced back to its source. As Hawkins (2006:61) says: “Water flows in, shit flows out, where from and to where we hardly care. The thing is that the flows are maintained”. The case study explored in this thesis demonstrates what happens when this flow is disturbed.

Final Reflections

My interest in the limitations, potential and issues associated with policy-making for unspeakable policy problems highlighted the need to begin to acknowledge the unspeakable in policy-making. As a consequence, while I focus on a specific subset of unspeakable policy problems in this thesis—those dealing with the regulation of sewage discharges from recreational vessels—its findings may have broader application to begin to understand a range of other unspeakable themes that often find themselves the subject of policy making such as water recycling; the siting of prisons, asylum centres, nuclear waste facilities, half-way houses, abattoirs and brothels; sexual and mental health; and the consideration of broader sanitation issues.

As Webster (1959:98) notes:

The problem of disposing of his excrement is one that man has faced since time began. He has discharged his wastes into rivers and other bodies of water, he has buried them and he has burned them. When he has failed to dispose of them he has found that he must face the inevitable consequence of his neglect.
This neglect extends to an unwillingness to discuss excremental matters. It has been argued that excrement tends to be denied on a policy-making level because “policy-makers and politicians harbour the same sort of psychological reactions as the people who are demanded to use the [sanitation] system” resulting in the subject tending to be denied even on a policy-making level (Rosenquist 2005:345). As a result, writing or speaking about excrement “is a sticky business” (Anspaugh 1994:74). In attempting to draft this thesis I found myself in much the same position Hadolt (1999:181) expresses in Shit and Politics trying “to create a certain distance from shit as matter and from its usual connotations of dirt and disgust by transforming it into an academic topic”. Excrement can be, and is, many things other than the by-product of the consumption of food. It is political and cultural, social and material, private and public, and has symbolic, material and practical elements—all of which are tied up with defining and naming of it. However, like many before me, I struggled to find comfortable language to discuss the topic at hand in both polite policy and academic circles.

Provenza (2007:10 emphasis in original) notes in his foreword to Praeger’s Poop Culture: “It’s shocking to think that a book about poop can be considered an act of courage. But it is”. Given the pressing need for open discussion to occur around a range of unspeakable topics in today’s environmental and social climate to avoid discussing the unspeakable out of respect for “a puritan legacy which makes our embodiment a source of embarrassment or shame seems to be as misguided as it is repressive” (Gurney 2000:73). To regard such subjects as beneath intellectual or policy attention seriously limits how we as a society can respond to the environmental and social challenges that present themselves.

If we want to move forward to a position where we can begin to imagine new ways to deal with sewage management and other abject policy problems then, “only a new coprophilic style can save us” (Gunn 2006:90); one which allows the open expression of ideas, lifts taboos surrounding these issues and demonstrates that the abject is a serious field of study (Weisberg 1993a:18). Put simply, “We need to put the word shit into people’s mouths” (Turner 2008 in Jewitt2011a:1). However, because there is a threat of stigma contagion for the researcher when taboo subjects are explored (Lee 1993),
“potential researchers looking around for an area of interest would almost certainly not choose this topic as one to which they would want their name attached” (Tanner n.d.).

This situation is slowly changing and the increasingly steady stream special interest publications on the topic extending from Wright’s *Clean and Decent* (1966) to the edited works *Filth* (Cohen & Johnson 2005) and *Dirt* (Campkin & Cox 2007) and Hawkin’s influential *Ethics of Waste* (2006) is starting to chip away at people’s discomfort with the topic of excrement by making it a topic of conversation. We are slowly beginning to have to courage to lift up the manholes and look into the sewers below. I hope my work encourages more of us to take a look inside and talk about what we have seen. What I have attempted to do in this thesis is to shed light on some of our taken for granted assumptions about policy making for unspeakable issues like the management of human faeces and to address Bird’s (1987:262) call to write “histories of environmental problems that examine the social relations, structural conditions, cultural myths, metaphors and ethical presuppositions that constitute the social negotiations with nature that contribute to those problems”.

It is as Laporte (2002:118) so poignantly notes in *History of Shit*:

> The most fantastical notions range around the sterile rationality of positive laws and seem, as a result, to refute ideas dear to medicine and science of yore. But the most primitive beliefs continue to be practiced quietly by those to whom capitalism has delegated the task of delivering its discourse on the body. The hygienist is a hero. He overcomes the most visceral repugnance, rolls up his shirt sleeves, and takes on the *cloaca*. He faces the foul unnameable and speaks of that thing of which no one else will speak. No one else dare name it for fear of soiling the image of his knowledge. He alone speaks of it; he alone makes it speak. Blood, milk, shit, sex, corpses, sperm, sewers, hospitals, factories, urinals…the hygienist has spoken of these ceaselessly.

The irrefutable fact of personal waste production situates the observer among the perpetrators of the problem and not just among its victims and turns us all, willing or not, into Laporte’s hygienists. In many respects the regulation of human faeces, as presented in this thesis, epitomises the feminist idea that the personal is political. Indeed, there is little more personal or more political than shit.
APPENDIX 1

Ethics approval & consent materials

This Appendix provides supporting details on the conduct of the research outlined in Chapter 2. It contains copies of the ethics approval and interview consent materials.
Policy-making to manage the discharge of ship-sourced sewage

Thank you for agreeing to be interviewed as part of this research project. This letter is to follow-up our initial telephone conversation and to confirm details of the research project.

This project is being undertaken as part of a Doctor of Philosophy (PhD) degree. The student researcher is Deanna Grant-Smith and the supervisor is Dr Diana MacCallum.

The project will consider the consultation and other policy-making processes surrounding the development of and changes to the sewage discharge provisions of the Transport Operations (Marine Pollution) Act 1995 between 1994 and 2006. Given the public interest generated by this case and other sewage cases (e.g. recycled water in Toowoomba) it is important to understand how this topic has been dealt with in policy processes.

You will be asked to talk about the policy-making processes adopted at various stages of review of the act. This will include talking about:

- the period of time you were involved in the policy process and in what capacity;
- the consultation methods and other policy-making processes employed during the stage of the policy process you were involved in;
- key policy and consultation texts that were prepared and distributed during this time and their purpose;
- key stakeholders involved during this time, their participation in the policy process and key concerns advanced; and
- your general views about the policy-making process adopted, the ‘policy problem’ and the proposed policy responses.

The interview will be undertaken by the PhD student Deanna Grant-Smith. With your consent, the interview may be audio-taped to ensure accuracy in note taking. However, comments made by you will not be identifiable within the research project. This means that comments provided by you will not specifically attributed to you as an individual in the publication and reporting of data. The reporting will include a PhD thesis and possibly academic publications such as journal articles.
You have been selected for an interview because of your key role in either the development of the original sewage discharge provisions of the *Transport Operations (Marine Pollution) Act 1995* or changes to this Act between 1994 and 2008. Maritime Safety Queensland has approved your participation, however, participation in this research project is voluntary. You are free to withdraw from the study at any time without comment or penalty.

If you request, I will provide you with a copy of notes relating to the content of your interview so you can provide comment about the following:

- Identifying information you would prefer to be kept confidential
- Correcting or clarifying facts or points of information
- Suggesting an alternative interpretation.

You will have four weeks to provide written comments and if comments are not received within that time, I will telephone you for any verbal comment. If any subsequent publication uses the same material as the PhD thesis you will not be recontacted for written comment (but you will be sent a copy for your information). If, however, any subsequent publication uses different material from your interview you will be provided with a draft for comment.

I will contact you several days before your interview to check if you have any concerns or queries, and to confirm the interview time. You can also contact either researcher at any time for additional information about the project:

- Deanna Grant-Smith  deanna.grant-smith@griffith.edu.au  07 38869290
- Dr Diana MacCallum  diana.maccallum@griffith.edu.au  07 37357155

Griffith University conducts research in accordance with the *National Statement on Ethical Conduct in Research Involving Humans*. If you have any concerns or complaints about the ethical conduct of the research project you should contact the Manager, Research Ethics, Griffith University on 07 3735 5585 or at G.Allen@griffith.edu.au.

Thank you once again for agreeing to participate in this research project.

Your sincerely

[Signature]

Deanna Grant-Smith
CONSENT FORM

Policy-making to manage the discharge of ship-sourced sewage

Supervisor: Dr Diana MacCallum
School: Griffith School of Environment
Contact Details: email: diana.maccallum@griffith.edu.au phone: 07 33735 7155

Student researcher: Deanna Grant-Smith
Research Centre: Urban Research Program
Contact Details: email: deanna.grant-smith@griffith.edu.au phone: 07 3886 9290

By signing below, I confirm that I have read and understood the information statement and in particular have noted that:

- I understand that my involvement in this research will include an audio-taped interview regarding the consultation program associated with the review of the sewage provisions of the Transport Operations (Marine Pollution) Act 1995.
- I have had any questions answered to my satisfaction.
- I understand the risks involved.
- I understand that I will not be identified in the publication and reporting of data – the comments I make will not be able to be attributed to me.
- I understand that I will be provided with notes from this interview for comment.
- I understand that my participation is supported by Maritime Safety Queensland but that my participation in this research is voluntary.
- I understand that if I have any additional questions I can contact the research team.
- I understand that I am free to withdraw at any time, without comment or penalty.
- I understand that I can contact the Manager, Research Ethics at Griffith University human research Ethics Committee on 07 3735 5585 (or G.Allen@griffith.edu.au) if I have any concerns about the ethical conduct of the project.
- I agree to participate in the project.

Signature: .............................. Name: .............................. Date: ..............................

I would like to review and comment on the notes taken about my interview  □ Yes  □ No
I would like a pdf copy of the completed PhD Thesis  □ Yes  □ No

Mailing/Email Address: ..............................
This Appendix provides details on the data sourced used to:

- document the policy making process and identify key actors and turning points in the policy development process;
- complement the accounts of the policy process provided during the interviews with key policy makers involved in the policy process; and
- provide texts for analysis to identify the ways the unspeakable was treated and its potential impact on the policy process.

The data is presented according to the following categories which relate to both the source and the purpose of the data: Government texts, unsolicited comment, and formal solicited submissions.
**Government texts**

**Government texts** refers to texts for which the State Government of Queensland is identified as the author, either implicitly as in the case of legislation or explicitly as in the case of ministerial media releases and policy position papers. Due to the number of these texts for presentation purposes they have been further broken down into genre. Detailed descriptions of the documents have been provided where appropriate.

**Education and information publications**


(2003) *Vessel waste management: what kind of waterways do we want?* [full-colour brochure, tri-fold 21cm x 15cm closed size]

(2003) *What kind of waterways do we want?* [poster]


(2004) **Vessel sourced sewage: Cairns Area.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Gladstone Area.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Hervey Bay.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Hinchinbrook Island Area.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Karumba.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Mackay Area.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Moreton Bay.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Noosa.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Townsville Area.** [1 page, A4 size]
(2004) **Vessel sourced sewage: Whitsunday Passage Area.** [1 page, A4 size]
(2007) **Cleaner Marina.** [full colour brochure, tri-fold DL size]
(2007) **Cleaner marina.** [poster]
(2009) **How can we keep our waterways clean? Fact sheet No. 1 for ships other than declared ships.** [2 colour fact sheet, A4 size, 2 pages]

(2009) **How can we keep our waterways clean? Fact sheet No. 2 for declared ships.** [2 colour fact sheet, A4 size, 2 pages]

(2009) **Marine pollution: what kind of waterways do we want?** [full colour brochure,]

(2009) **Sewage information and networking seminars.** [web page]

(2009) **Be ready for the final phase of the sewage discharge requirements.** [web page]

(2009) **Ship-sourced sewage management – definitions.** [web page last updated 08/04/09]

(2009) **Ship-sourced sewage management.** [web page last updated 08/04/09]


(2009) **Management of unlawful vessel-sourced untreated sewage discharge incidents procedure.** No. MAR1169sh7, issued 16/05/06, revised 15/09/09.

(2009) **Management of vessel-sourced untreated sewage spill incidents policy.** No. MAR1168sh7, issued 16/05/06, revised 18/09/09.

(2009) **Sewage Compliance Audits of declared ships guideline.** No. MAR1428sh7, issued 15/05/09.

(2009) **Sewage Compliance Audits of declared ships policy.** No. MAR1429sh7, issued 16/01/09.

(2009) **Sewage Compliance Audits of declared ships procedure.** No. MAR1459sh4, issued 18/05/09.

(2009) **Shipboard sewage management plan requirements for declared ships standard.** No. MAR1250sh7, issued 28/08/07, revised 15/09/09.

(2011) **Options for sewage legislation compliance – ships other than declared ships.** [full colour fact sheet, A4 size, 10 pages]


QUEENSLAND DEPARTMENTS OF MAIN ROADS & TRANSPORT (1997) **Policy, Standards & Guidelines.**

(1998) **Learning from Our Experiences in Consultation: Case Study 2 – The sewage from ships project.** [video duration 21:30 minutes]
(1999) Learning from Our Experiences in Consultation: Case Study 3. [video duration 31:15 minutes]

QUEENSLAND TRANSPORT (1995) Think about it!!! [full colour tri-fold, DL size]


(1997) All Hands on Deck for a Cleaner Coast. [full colour brochure, bi-fold DL size]


(2000) Marine sewage legislative review. [1 page letter inviting and outlining process for providing comment]


**Maps**

Amity Point to Caloundra vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-22, Maritime Safety Queensland, 17 August 2004.


Cairns Region vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-12-1, Maritime Safety Queensland, 18 August 2004.


Cape Flattery to Clear Bay vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-14-1, Maritime Safety Queensland, 23 August 2004.

Cape Kimberley to Russell River vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-16-1, Maritime Safety Queensland, 23 August 2004.

Couran to Russell Island vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-20, Maritime Safety Queensland, 17 August 2004.

Gladstone to Port Alma vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-27-1, Maritime Safety Queensland, 18 August 2004.

Great Sandy Strait North vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-31, Maritime Safety Queensland, 19 August 2004.
Great Sandy Strait South vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-30, Maritime Safety Queensland, 17 August 2004.


Johnstone River to Dunk Island vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-17-1, Maritime Safety Queensland, 23 August 2004.


Lizard Island to Three Islands vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-13-1, Maritime Safety Queensland, 23 August 2004.

Mackay vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-11-1, Maritime Safety Queensland, 18 August 2004.


Russell Island to Amity Point vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-21, Maritime Safety Queensland, 17 August 2004.

Southport to Couran vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-19, Maritime Safety Queensland, 17 August 2004.


Trinity Inlet Area vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-18-1, Maritime Safety Queensland, 23 August 2004.

Weipa vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-29-1, Maritime Safety Queensland, 25 August 2004.

Whitsunday Passage vessel sourced sewage discharge restrictions recreational craft to 15 persons; commercial class 2 and 3. Map C5-10-1, Maritime Safety Queensland, 25 August 2004.
Media releases

BREDHAUER, STEVE (2001) Sewage holding tank date extended. 19 December 2001, Minister for Transport & Main Roads


LUCAS, PAUL (2004) Boating safer but more education needed. 9 April 2004, Minister for Transport & Main Roads [Hon Paul Lucas MP]


Records of Parliamentary processes


Question on Notice No. 590. Asked on 21 April 2005, Matt Foley MP asked Minister for Transport and Main Roads, Hon Paul Lucas MP.


**Alert Digest Issue No. 06 of 2002.** tabled 30 July 2002, Scrutiny of Legislation Committee. 50th Parliament, 1st session, chair Warren Pitt MP.

**Alert Digest Issue No. 10 of 2005.** tabled 28 September 2005, Scrutiny of Legislation Committee. 51st Parliament, 1st session, chair Hon Ken Hayward MP.


**Alert Digest Issue No. 05 of 2006.** tabled 9 May 2006, Scrutiny of Legislation Committee. 51st Parliament, 1st session, chair Hon Ken Hayward MP.

**Alert Digest Issue No. 06 of 2006.** tabled 23 May 2006, Scrutiny of Legislation Committee. 51st Parliament, 1st session, chair Hon Ken Hayward MP.

**Alert Digest Issue No. 07 of 2006.** tabled 6 June 2006, Scrutiny of Legislation Committee. 51st Parliament, 1st session, chair Hon Ken Hayward MP.

**Alert Digest Issue No. 04 of 2008.** tabled 15 April 2008, Scrutiny of Legislation Committee. 52nd Parliament, 1st session, chair Carryn Sullivan MP.
Alert Digest Issue No. 05 of 2008. tabled 29 April 2008, Scrutiny of Legislation Committee. 52nd Parliament, 1st session, chair Carryn Sullivan MP.


Research consultancies


Surveys & Questionnaires


QUEENSLAND TRANSPORT (1997) All hands on deck for a cleaner coast. [4 question postcard survey]


(1997) Results of the cleaner coast questionnaire. [unpublished report]
Unsolicited comment

Unsolicited comment refers to texts generated independently of and circulated outside the official policy and consultation processes including newspaper articles for a public or boating audience, club newsletters and ministerials. Newspapers surveyed included *The Courier-Mail*, *The Sunday Mail*, regional Queensland newspapers and QUEST affiliated free newspapers. The recreational boating publications sampled included free boating newspapers and boating magazines intended for broad public distribution such as *The Coastal Passage*, *Go Boating*, *Cruising Helmsman*, and *Bow2Stern*. Figure A2.1 provides a comparison of the newsprint articles collected in terms of the number of pro-regulation articles (that is to say those articles that support the use of regulation to control sewage discharges from recreational vessels) against those which took an anti-regulation stance and did not support the use of such regulation in Queensland.

![Figure A2.1: Comparison of pro-regulation and anti-regulation newsprint articles, 1996-2010](image)

Positive and more neutral reporting regarding the need for the regulation of sewage discharges from recreational vessels peaked in 1998 with the release of the first position paper for public comment because it raised awareness about current disposal practices from recreational vessels. It is difficult to assess with any accuracy how well the views of the general community were reflected in the debate at this time. Certainly organisations like the Surfriders Foundation and the Australian Marine Conservation Council had
concerns regarding the discharge of sewage from vessels and had taken a pro-regulatory stance. However, these organisations failed to attract media attention. In fact, in this period the majority of neutral or pro-regulation articles were generated by departmental press releases which were often printed with minimal alterations or additional comment.

The second peak of pro-regulation reporting, that is to say articles which supported the need for discharges from recreational vessels to be regulated but may have called for even tougher regulations, occurred in 2001 following the release of the second position paper for public comment. A large amount of pro-regulation reporting in this period can be attributed to a number of coastal councils in south-east Queensland, particularly around Noosa and the Pumicestone Passage area, seeking more stringent sewage discharge requirements. There was an undercurrent of anti-regulation articles but these had dropped considerably from earlier levels. In some respects these variations in anti-regulation newsprint coverage tended to converge with times when formal opportunities were provided for boaters to provide comment on the sewage management proposals such as with the release of the first Position Paper for public comment in 1998 and again with the release of the Position Paper for community consultation in 2000.

A second peak of anti-regulation reporting was observed in 2004 and 2005 following the commencement of the new sewage provisions on 1st January 2004. This peak can largely be attributed to articles and editorials in the free recreational boating newspaper The Coastal Passage and the glossy recreational boating lifestyle magazine Go Boating (RRP $6.95). Both publications were established around this time and contributions from the editors of these publications accounted for the bulk of negative commentary.

Reporting largely tapered off between 2006 and 2010 with the majority of articles taking a neutral position. Reporting in some recreational boating publications, such as Bow2Stern, had begun to provide a more moderate, factual and relatively agnostic coverage which tended to focus on how boaters could comply with the new laws rather than simply deriding them and encouraging non-compliance. The media articles which

1 The Coastal Passage appeared to be largely geared toward a sailing/yacht readership and Go Boating toward a cruising/motorboat readership, although there is some overlap.
took a more pro-regulation of sewage discharges from vessels stance during this period, in particular letters to the editor, tended to be in the mainstream press and to focus on a perceived lack of enforcement of the laws and the need to strengthen the enforcement presence and commitment.

Public unsolicited comment


AUSTRALIAN ASSOCIATED PRESS (2001) Qld Boat owners given more time to flush. 20 December 2001.


(2004) Your vessel is hour home! What to do when the Dollop-walloper visits. The Coastal Passage. 11. [accessed 03/04/07]

(2005) Your vessel is hour home! What to do when the Dollop-walloper visits. The Coastal Passage. 16. [accessed 03/04/07]


BLA (no date) Auto-San Marine Sanitation Device. [brochure]


BUTT, CHRIS (2002) Stink starts over ocean discharge. Fraser Coast Chronicle. 17 May 2002


   
   
   (no date) *Poo pages*. [accessed 03/04/07]

   (no date) *Boaties deserve justice*. [poster]


   
   

   

   
   [accessed 03/04/07]

   
   


   


GRADON MARINE & CONSTRUCTION (no date) Sani-Loo professional marine sanitation systems. [brochure]


JENSEN, BRIAR (2004) Head-less (toilet trauma). The Coastal Passage. 9: 17


MARLIN MARINE (2004) Check out these specials on heads!!! The Coastal Passage. 8:6.


NORSON, BOB (2004) Why do I cruise?: they don’t belong here! The Coastal Passage. 8: 5


www.thecoastalpassage.com/poo_envy.html [accessed 03/04/07]


(2005) Poo propaganda? ... or taking the piss outa the poo. The Coastal Passage. 16: 18. www.thecoastalpassage.com/papers/tcp16.pdf [accessed 03/04/07]

(no date) Ad campaign to promote boaties rights. www.thecoastalpassage.com [accessed 03/04/07]


Planned legislation change to discharge of sewage from boats. 26 March 2003: 10.


(1997) Update on the issue of sewage disposal from small craft: some facts you need to know to understand the debate. November 1997.


Sea loo extension. 29 December 2001: 9.

Offenders to pay the price. 4 June 2008:37.


New smell-evision star. 3 November 2010:70.

Unpublished unsolicited comment


Ministerials made in 1998 in response to vessel-sourced sewage pollution incidents

Ministerials made in 2001 in response to vessel-sourced sewage pollution incidents

Ministerials made in 2002 in response to vessel-sourced sewage pollution incidents
Solicited submissions

Solicited submissions refers to texts generated by members of the public inside the formal policy and consultation processes.


APPENDIX 3
The potential public heath, ecological and aesthetic impacts of sewage discharges

This Appendix provides background information to support the case study outlined in Chapter 5. It describes the potential impacts of sewage discharges, with a specific focus on the potential impacts of sewage discharges from recreational vessels. As shown in figure A3.1, sewage discharges are generally understood to have impacts in three main areas: public health, environmental quality and aesthetics.

![Figure A3.1: Constructing sewage discharges as a problem](image)

**Understanding sewage disposal as a potential public health problem**

Sewage discharges from recreational vessels are generally considered to be “more a sanitary than environmental issue” (Moreau et al 2007:13). Indeed, even in the scientific literature, the most commonly cited potential impact of sewage discharges are those relating to public health and their potential to negatively affect the health of individuals ingesting or coming into direct contact with sewage polluted water during recreational activities (Saffron et al 2003). Sewage waste typically contains bacteria, viruses and
parasitic micro-organisations (often referred to as protozoa) which can contaminate the water.

As a general rule, receiving waters contain a mixture of faecally derived pathogenic micro-organisms and non-pathogenic faecal indicator micro-organisms. These micro-organisms can be derived from land-based sewage discharges (such as those from treatment plants); sewage discharges from vessels; the recreational population using the water (from in-water defecation and/or shedding); or deposits from livestock, industrial processes, farming activities, domestic animals and wildlife (NHMRC 2008:59). The pathogens that may be present in and transmitted through contaminated recreational water as a result of these activities are diverse and there can be serious public health concerns associated with the ingestion of the disease causing pathogens often present in these sewage discharges (Ross 1985:7). As shown in table A3.1, the main health risks in recreational waters are from enteric viruses, bacteria and protozoa (NHMRC 2008:4).

### Table A3.1: Examples of common waterborne pathogens found in faecally contaminated recreational waters and their potential health impact

<table>
<thead>
<tr>
<th>Pathogen/Indicator organism</th>
<th>Public health significance</th>
<th>Relative infectivity</th>
<th>Potential health impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viruses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotaviruses</td>
<td>high</td>
<td>high</td>
<td>diarrhoea, vomiting</td>
</tr>
<tr>
<td>Adenoviruses</td>
<td>high</td>
<td>high</td>
<td>respiratory disease, gastroenteritis</td>
</tr>
<tr>
<td>Noroviruses</td>
<td>high</td>
<td>high</td>
<td>diarrhoea, vomiting</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>high</td>
<td>high</td>
<td>Hepatitis A</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>high</td>
<td>high</td>
<td>Hepatitis E</td>
</tr>
<tr>
<td>Parasitic protozoa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryptosporidium ssp ooocysts</td>
<td>high</td>
<td>high</td>
<td>Diarrhoea</td>
</tr>
<tr>
<td>Entamoeba histolytica</td>
<td>high</td>
<td>high</td>
<td>amoebic dysentery</td>
</tr>
<tr>
<td>Giardia lamblia cysts</td>
<td>high</td>
<td>high</td>
<td>Diarrhoea</td>
</tr>
<tr>
<td>Bacteria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campylobacter spp</td>
<td>high</td>
<td>moderate</td>
<td>Gastroenteritis</td>
</tr>
<tr>
<td>Clostridium perfringens spores</td>
<td>nil (indicator)</td>
<td>low</td>
<td>indicator only</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>high for rare strains but most are indicators</td>
<td>high for non-indicator strains</td>
<td>indicator only (specific strains)</td>
</tr>
<tr>
<td>Intestinal eterococci</td>
<td>nil (indicator)</td>
<td>low</td>
<td>indicator only</td>
</tr>
<tr>
<td>Salmonella spp</td>
<td>high</td>
<td>low</td>
<td>Gastroenteritis</td>
</tr>
<tr>
<td>Shigella spp</td>
<td>high</td>
<td>moderate</td>
<td>bacillary dysentery</td>
</tr>
</tbody>
</table>

(data derived from NHMRC 2008:59-61)
While the most frequent adverse health outcome associated with exposure to faecally contaminated recreational water appears to be enteric illnesses, such as gastroenteritis (NHMRC 2008:61), respiratory infections are now also thought to be important (Corbett et al 1993). While the most common symptoms recorded for bathing contact with sewage polluted waters are those of the ear, eye, upper respiratory tract and gastrointestinal tract (Rees 1999:36), skin-related symptoms have also been observed in swimmers exposed to high levels of bacteria in marine water (Yau et al 2009).

While the majority of bacteria and viruses found in sewage waste are harmless, sewage contaminated water can contain more serious disease causing pathogens such as cholera, typhoid and hepatitis which are transmitted by drinking or ingesting the contaminated water (Joy 1975:12). Sewage contaminated waters can also contain parasites found in human faeces which can become waterborne and affect people through direct contact such as the protozoa *Giardia lamblia* and *Cryptosporidium parvum* (Climburg et al 2000:588). The presence of these organisms, as a result of sewage discharges, may pose a health hazard particularly when the water is used for recreational activities that involve whole-body contact such as swimming or surfing as there is a reasonable risk that the pathogens may enter the body during such activities (NHMRC 2008:17; Saffron et al 2003). The US Centre for Disease Control also found that sewage discharges from recreational vessels caused outbreaks of Norwalk virus (PIANC 1997:6).

It is also possible that public health problems may arise if sewage from vessels and other sources is released into enclosed waterways with limited flushing supply or in the vicinity of saltwater shellfish beds (Ross 1985:7). The discharge of untreated or partially treated human wastes from vessels is strongly believed to contribute to high bacteria counts and subsequent increased human health risks (Woodley 1997). Faecal coliform contamination in shallow estuarine waters can directly affect the quality of the shellfish harvested from them (Faust 1982: 255) as the pathogens present in sewage wastes can accumulate in the flesh of oysters and other seafood and pose a health risk to humans subsequently eating the seafood (Joy 1975:10). Studies undertaken in the US link recreational boating sewage

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Both parasites will be familiar to many Australians following the drinking water crisis in July-September 1998 in the lead up to the Sydney Olympic Games during which both parasites were found to be present in Sydney’s drinking water supplies (Cox et al 2003).
discharge activities to the contamination of shellfish beds and as the cause of elevated coliform levels in areas with high boat concentrations and low tidal flushing (PIANC 1997:5). However, boating organisations have argued that “the studies carried out to date failed to establish a correlation between the presence of recreational craft and bacteriological pollution from sewage” (Moreau et al 2007:26).

While targeted epidemiological studies have shown a number of adverse health outcomes associated with contact with faecally polluted recreational water (WHO 2003), the number of microorganisms (i.e. the dose) that may cause infection or disease depends on a number of factors including: the specific pathogen; the form in which it is encountered; the conditions of exposure; and the host’s susceptibility and immune status. While these variables seem to suggest that the potential negative health impacts would be lower in a relatively ‘healthy’ country like Australia, it should be noted that for some viral and protozoan illnesses the dose required to cause illness may in fact be very few viable infectious units (Teunis et al 1999; NHMRC 2008).

It is often argued by recreational boaters and others that the decomposition and attenuation of pathogens is likely to occur relatively quickly in ocean environments (Dawe & Penrose 1977). However, it has been argued that the ‘if you cannot see it, it is safe’ approach to marine pollution is overly optimistic because pathogenic bacteria are not necessarily killed by exposure to seawater (Clark 1992:26). There is no definitive agreement between scientists as to whether pathogens do or do not retain their infectivity in seawater (Climburg et al 2000:595) because the direct detection of pathogens is generally not a feasible option for routine assessment of water quality—they occur intermittently and pathogens are difficult to recover from water. It is for this reason that indicator micro-organisms are generally used to assess the health risks associated with pathogens in recreational waters. Indicator bacteria do not necessarily pose a direct health risk to humans but do suggest the likely presence of harmful pathogens, such as *Salmonella*, *Shigella*, noraviruses, enteroviruses, *Cryptosporidium*, and *Giardia*, which are found in both human and non-human sources of faecal pollution and are considered health threats.
While a number of organisms are considered possible indicators of health risks in recreational waters the use of faecal coliform bacteria is the most favoured (ANZECC & ARMCANZ 2000:5-5). The presence of faecal coliform bacteria are used to indicate the presence of sewage and the potential presence of other disease causing microorganisms including viruses (McGee & Loehr 2003:733). While the presence of faecal indicator bacteria is used as the primary tool for microbially based risk assessment, the measurement of faecal indicator bacteria does not indicate what other pathogens may be present (Yan & Sadowsky 2007:97). However, testing for coliform bacteria is faster and cheaper than testing for specific organisms and pathogens. The *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* require that no more than 1000 faecal coliforms/100ml be present to ensure a safe level for secondary contact activities such as paddling, wading, boating and fishing where there may be direct contact with the water but the chance of swallowing water is unlikely (ANZECC & ARMCANZ 2000:5-2). There should be no more than 150 faecal coliforms/100ml to ensure a safe level for primary contact activities where the body can be fully immersed and there is the potential to swallow water, and you are in direct contact with the water such as occurs when surfing, water skiing, diving and swimming (ANZECC & ARMCANZ 2000:5-2).

The use of indicators to assess the potential health risks associated with water quality can be problematic because the use of coliform indicators was originally developed for use with large treated sewage discharges and may not therefore accurately predict pathogenic pollution from the small quantities of fresh faecal matter discharged from recreational boats (Milliken & Lee 1990:2). Furthermore, significant differences have been shown to exist in swimming-associated gastrointestinal illness rates in seawater swimmers compared to freshwater swimmers at a given level of faecal indicator organisms, with reported rates for seawater swimmers approximately two times greater than for freshwater swimmers (Doufour 1984 in NHMRC 2008:73; WHO 2003). It has been suggested that this may be because bacterial indicator organisms have different die-off characteristics in marine and fresh waters, whereas human virus are inactivated at similar rates in these environments. This would suggest there may be a more rapid die-off of indicator bacteria than of pathogens (especially viruses) in seawater compared to fresh water when indicator organism densities are identical (NHMRC 2008:73-74).
Consequently, some treatments (such as disinfection as employed in a vessel holding tank) may affect the validity of microbial water-quality assessment because they have different effects on indicator and pathogenic organisms. This may lead to underestimates of risk, particularly from disinfection-resistant enteric viruses and Cryptosporidium (NHMRC 2008:80). Similarly, while the diluting effects of the marine environment are also considered to substantially reduce the risks of infection, the potential for a swimmer to contract a condition such as cryptosporidiosis by accidentally ingesting oocysts while swimming in areas contaminated by sewage cannot be dismissed (Roberston et al 1992).

While the actual contribution of vessel discharges to the overall pollutant load is hotly contested, the coliform contributions made by small vessels have been well documented (Cassin et al 1971) and there is ample scientific evidence to suggest that the discharge of sewage from vessels can contribute to estuarine coliform contamination (Faust 1982:256) and to the overall levels of faecal bacteria in other waterways (Yan & Sadowsky 2007; Mallin et al 2010) and marinas (Mack & D'Itri 1973). This can be particularly problematic for public health outcomes because sewage discharges from recreational vessels often occurs at the same time and in the same areas as water contact sports or swimming (Seabloom 1969).

**Understanding sewage disposal as a potential ecological problem**

While the National Health & Medical Research Council (2008), among others, has developed scientific parameters for quantifying and assessing potential public health risk caused by sewage discharges little research has been carried out into its potential effects on the natural environment (Saunders et al 2000:73). Part of this is because the environmental impacts of sewage discharges are more difficult to quantify and isolate and vary depending on a number of factors including effluent volume, the pre-treatment

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Seabloom (1969) contends that the influence of sewage discharges from small boats on the bacteriological quality of fresh water bodies can be clearly demonstrated. A study conducted by Mallin et al (2010) has shown using dye studies and DNA-based techniques to detect the source(s) of faecal contamination that discharges from boat heads in marine waters can be a major cause of faecal contamination. The results of this study resulted in the declaration of the first marine area on the US eastern seaboard between Delaware and the Florida Keys to be declared as a no discharge zone in February 2010 (Mallin et al 2010:2748). This is also supported by Mack and D'Itri (1973) who found that as the numbers of yachts at a marina increased, so did the coliform content at the most frequently used slips.
of effluent, effluent dispersal characteristics and the location of the effluent discharge point. However, it is generally agreed that sewage discharges do have the potential to result in significant environmental impacts to the marine environment.

While sewage contains levels of nutrient concentrations, such as nitrogen and phosphorus which can be several orders of magnitude higher than the background levels of the receiving ocean and estuarine waters (Minnesma & Nietsen 1994) because the organic constitutes of sewage are largely biodegradable and have no direct toxic effect sewage discharges are generally not regarded as a long-term contaminant (Tharpes 1989:588; Warnken & Byrnes 2001). However, because sewage naturally contains large amounts of the nutrients and organic matter it can help to rob a natural aquatic ecosystem of its oxygen content by causing an increase in its biological oxygen demand (Swanson et al 2004:769); a measure of the amount of oxygen consumed in the biological processes that break down organic matter in water.

Sewage contains organic materials that are decomposed by oxygen consuming microorganisms. This biochemical oxygen demand (BOD) is often measured as the five day BOD (BOD5), defined as the amount of dissolved oxygen consumed by microorganisms in the biochemical oxidation of organic matter over a 5 day period at 20°C (ANZECC & ARMCANZ 2000:9.4-14). BOD can be used as an indicator of pollutant level, where the greater the BOD, the greater the degree of pollution. Chemical oxygen demand (COD) is a theoretical maximum measure of the amount of oxygen required by the chemicals in a water source. It is usually only significant where high concentrations of chemicals are in the water (ANZECC & ARMCANZ 2000:9.4-14).

Phosphorus and nitrogen are important plant nutrient which can assist in stimulating the growth of nuisance organisms, particularly algae in brackish waters, and excessive inputs can lead to nutrient pollution. The input of these nutrients can induce massive growths of algae and other phytoplankton which ingest the dissolved oxygen content in the water and suffocate marine life in a process known as eutrophication (Tharpes 1989:586). Changes to the biological oxygen demand of the water due to these nutrients can be particularly damaging especially around coral reefs (O'Mahony 2006:31). The increased
phosphorus and nitrogen loads as a result of sewage discharges can also lead to significant changes in the structure and function of marine communities that are dependent on ambient low nutrient levels (Day et al 1989), such as corals and seagrass beds (Udy & Dennison 1997; Udy 1998). Other flow on ecological effects include the loss of important feeding and breeding habitats such as sea grass, and impacts on benthic animals such as corals. Decomposing organic matter produced by excessive aquatic weed and algal growth can also lead to oxygen depletion and in some cases, fish kills. Eutrophic waters also provide an ideal environment for pathogens that can increase the incidence of infections and disease in exposed wildlife and people. However, it has been argued by boating organisations that the “eutrophication from sewage produced by recreational craft is minor other than in encloses areas of water” and can be primarily attributed to agricultural runoff water containing fertilisers (Moreau et al 2007:26).

Elevated nutrient levels can also lead to changes in the abundance of algae resulting in algal blooms (Leon & Warnken 2008:838; Walker et al 1999). Algal blooms are large fast-growing colonies of floating algae which can block light from reaching other marine plants and smother bottom habitats and choke waterways and estuaries. Once the nutrients that support the blooms are used up the algae begins to die. As the algae decays it uses up oxygen reducing the amount of oxygen available for fish and other marine life. Several species of blue-green algae can also produce toxic substances that may kill fish, birds and other aquatic and terrestrial animals or cause contact dermatitis or influenza-like symptoms in swimmers who come into contact with it (ANZECC & ARMCANZ 2000). Some of these phytoplankton species can also bioconcentrate in shellfish making them unfit for consumption (Tharpes 1989:587).

Generally, larger quantities of sewage emitted continuously into the water column over longer time periods are more likely to cause major shifts and, consequently, impacts to marine flora and fauna at the community level. The sewage-related impacts from boating activities are therefore generally expected to be cumulative and combined with land based discharges, rather than stand alone. In general, the discharge of sewage from vessels is primarily considered to be more of a major problem in enclosed inland waters or semi-enclosed coastal waters where flushing is minimal such as marinas, harbours,
estuaries and bays (Cassin et al 1971; Faust 1982; Fisher et al 1987; Gaines & Solow 1990; Milliken & Lee 1990). However, there may be instances where the discharge of sewage from vessels can be problematic such as in sensitive areas of marine parks or areas exposed to continuous high levels of use by large vessels carrying large numbers of people. As such, the size, depth and tidal flushing of the receiving water body, in conjunction with the characteristics of vessel use and the receiving environment, must all be considered to effectively determine the sewage capacity of a waterway (Chmura & Ross 1978).

Other potential ecological impacts associated with sewage discharges can include: the accumulation of toxicants such as heavy metals in marine organisms and sediments; changes to the species composition of marine communities to higher abundances of species that are tolerant to pollution; and long-term degradation of more sensitive environments such as coral communities and seagrass meadows by chronic exposure to sewage effluent (GBRMPA 2005:5).

It has been suggested by recreational boaters and others that the effect of raw and treated sewage discharge from boats in fast flushing coastal areas and open seas is negligible, particularly in the context of sewage discharge from municipal treatment plants, however, ship-sourced sewage discharges in poor flushing estuarine areas, such as inlets and bays, can have a significant localised impact on the environment (Saunders et al 2000:80). It is difficult to quantify this impact but it is likely to be greatest in areas which already suffer from environmental stresses from other sources such as agricultural runoff (Saunders et al 2000:73). The number of boaters discharging untreated sewage into an area also appears to contribute to the degradation of water quality in locations such as popular anchorages (Antonini et al 1994:8) and marinas (Dolgen et al 2003). In such areas where there are already low levels of dissolved oxygen and high levels of nutrients in the water, an increase in biological oxygen demand and nutrient levels, resulting from boat sewage discharge, can damage marine fauna and flora (Saunders et al 2000:80).
One of the contributing factors for this is that ship-sourced sewage tends to be more concentrated than domestic wastewater because less water is used for sanitary purposes onboard a vessel than in traditional land-based sewerage systems which contains large amounts of fresh tap water for flushing purposes and because greywater streams also join with the blackwater (sewage) streams before being treated at a wastewater treatment plant prior to discharge (Schulkin 2002: 110). In fact, it has been suggested that vessel sewage is more concentrated than domestic sewage for almost all parameters used to measure wastewater properties including total suspended solids, total nitrogen and biological oxygen demand. Based on this it has been suggested that based on the concept of relative strength, dumping a twenty gallon vessel holding tank is as relatively harmful to water quality as discharging several thousand gallons of sewage from an efficiently operated municipal sewerage treatment plant or septic tank. However, it should also be remembered that this plants operate twenty-four hours a day and discharge millions gallons of effluent each day (PIANC 1997:6).

Additionally, As a result, domestic wastewater has been estimated to be over 99.5% water by weight with the remaining 0.5% waste component comprised of urine and faecal matter, dirt, oils and cleaning compounds (Joy 1975:8). By contrast sewage discharges from vessels have been estimated to be three parts salt water to one part sewage (BOANSW 2000b) and vessel sewage is typically released ‘raw’ (i.e. without treatment other than maceration) directly into receiving waters. Sewage discharged from recreational boats is therefore very likely to increase the biological oxygen demand in the vicinity of the boat which has the potential to lower dissolved oxygen concentrations if the discharges take place in poorly flushed waters (Milliken & Lee 1990:1), which are

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4 It has been estimated that although the volume of wastewater discharged from recreational vessels may be relatively small the wastewater tends to be highly concentrated and the BOD is considerably higher (1700-3500 mg/L) than that of raw municipal sewage or treated municipal sewage (at 110-400 mg/L and 5-100mg/L respectively) (Milliken & Lee 1990:1).

5 Dissolved oxygen is a measure of the amount of gaseous oxygen (O₂) dissolved in water. The factor most frequently responsible for a significant reduction in the oxygen concentration of the water (oxygen deficiency) is pollution by biodegradable organic substances such as sewage which is decomposed by bacteria which use oxygen for this process. The most common cause of low dissolved oxygen is a high concentration of biodegradable organic matter in the water, resulting in a high BOD. This problem is further exacerbated at high temperatures. Anoxia occurs when dissolved oxygen levels in the environment decrease to the point where aquatic life can no longer be supported. In suboptimal dissolved oxygen levels, growth is slowed (ANZECC & ARMCANZ 2000:9.4.18).
often attractive mooring locations. Increased turbidity\(^6\), or suspended solids, caused by sewage discharges is important when assessing the quality of water for ecological, recreational and water quality reasons (NLWRAAC 2008) because high concentrations of suspended solids can have major effects on aquaculture operations as inorganic suspended solids can attenuate light (primarily through the process of scattering) and degrade optical water quality by reducing water clarity and decreasing light available to support photosynthesis (ANZECC & ARMCANZ 2000:4.4-9).

Another potential environmental concern is that many boat owners and operators may choose to use chemical additives, such as chlorine\(^7\) and formaldehyde, along with perfume and colouring agents to retard sewage degradation, disinfect and control sewage odours emanating from the holding tanks onboard their vessel (Walker et al 1991). While most chemicals on the market are biodegradable and are believed to be safe if used as directed by the manufacturer, if the wrong type of additive is used or it is not used according to the manufacturer’s instructions these chemicals can be toxic to marine life. Similarly chemicals added to portable toilets to disinfect, breakdown and deodorise waste can have a localised impact on marine fauna and flora. The most commonly used substances are chlorine, formaldehyde, and ammonium and zinc compounds. All these chemicals, if discharged into the water in sufficient concentrations, are toxic to marine life and, therefore, have the potential to affect marine flora and fauna (Saunders et al 2000:73). Chemicals such as chlorine are also produced by onboard sewage treatment systems\(^8\) to disinfect the sewage.

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\(^6\) Total suspended solids, sometimes referred to as turbidity, is comprised of organic and mineral particles that are transported in the water column while turbidity is the measure of the light scattering properties of water and depends on the amount, size and composition of the suspended matter. Suspended solids refers to the mass of the suspended matter and is measured as mg/L.

\(^7\) The chlorination of sewage for disinfection purposes can generate chlorinated-organic compounds that may be carcinogenic or harmful to the environment. Residual chlorine may be capable of chlorinating organic material in the natural aquatic environment and be toxic to aquatic species (Brungs 1973).

\(^8\) The Raritan Lectra/San EC™, a popular onboard treatment system for recreational vessels, treats sewage by running a current through coated electrode plates to create an electrical field which converts salt water into hypochlorous acid (Husick 1996:70).
Sewage discharges also have the potential to negatively affect the pH\(^9\) of the surrounding waters. The acidification of highly alkaline water (like sea water) can increase the free carbon dioxide concentration, resulting in CO2 toxicity. In addition, acid water tends to dissolve metals more readily (ANZECC & ARMCANZ 2000:9.4-21).

**Understanding sewage disposal as a potential aesthetic problem**

In terms of sewage discharges as an aesthetic problem, visible sewage debris “may exude an offensive odour and greatly impair natural aesthetics” (Tharpes 1989:587). The National Health and Medical Research Council (2008:5) believe that recreational waters should be aesthetically acceptable to recreational users and “free from visible materials that may settle to form objectionable deposits” such as: floating debris; oil and other scum; substances producing objectionable colour, odour, taste or turbidity; and substances and conditions that produce undesirable aquatic life. While these parameters give some guidance, the quantification of the potential aesthetic impacts of sewage discharges is difficult.

Odours and “other aesthetic offenses” are often associated with the discharge of sewage waste from recreational boats (Strand & Gibson 1900:282). However, while few studies have analysed the “aesthetics of human waste disposal” (Climburg et al 2000:587), the discolouration caused by sewage discharges and/or the presence of floating faecal matter and toilet paper are generally agreed to decrease the visual aesthetics of waterways (Seabloom 1969). The suspended solids component of sewage, including macerated sewage, causes discolouration of water and can be considered visual pollution (Moreau et al 2007:25).

Unlike ecological and public health parameters no guideline values have been established for the aesthetic aspects of sewage pollution. However, these aspects are important for maximising the benefits of recreational water use. In existing guidelines for managing recreational water quality, the principal aesthetic concerns are primarily physical which seek to reduce obvious visual pollution, turbidity, scum or odour of the water body that

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\(^9\) pH refers to the hydrogen ion (H\(^+\)) concentration in water; more generally, pH refers to how acidic or basic a water is. The pH of seawater is generally between 6.0 and 9.0.
“will cause revulsion” (NHMRC 2008:10). Clearly, this would suggest that there is an important psychological component of aesthetic responses to sewage discharges which is recognised but poorly addressed.

While human sewage from boats “can be a repulsive visual pollutant” often it is the mere thought of swimming in such waters that is an emotional deterrent (Ross 1985:7) from doing so. Measuring aesthetic impacts is a clearly subjective and personal response based on disgust and revulsion cause by both actual and imaged pollutants. As a result the public often perceives water quality to be very different from its actual microbial or chemical quality (NHMRC 2008:10). The impact of these emotional triggers on perceptions of pollution cannot be underestimated. For example, studies have shown higher incidence rates of self-reported gastrointestinal illness after bathing in sewage-polluted water to be strong associated with public perceptions of different items affecting the aesthetic appearance of the water with the presence of litter, oil slicks, excrement, and discarded condoms and sanitary towels being strongly correlated with the likelihood of self-reporting (University of Surrey 1987 in NHMRC 2008:161).

Similarly, Pendleton, Martin & Webster (2001) argue that an individual’s initial perception of water quality is based almost entirely on the aesthetic characteristics of the water and the surrounding environment. Aspects such as water colour, clarity, odour, and the existence of waste material (litter and debris) strongly influence their opinion of water quality despite the fact that these aesthetic features often have little or no association with the actual physical, chemical, and biological quality of the aquatic system. The absence of floating waste does not mean that the surrounding waters are safe from the more serious effects of sewage discharges (PIANC 1997:5).
This Appendix provides background information on infrastructure for managing sewage discharges from small ships, particularly recreational vessels, as background information to support Chapter 5.

Sewage management approaches for recreational vessels typically target the installation of infrastructure onboard vessels, the provision of shore-based infrastructure or a combination of the two. The most commonly used and prescribed fixed and removable onboard sewage management infrastructure appliances onboard recreational vessels include marine toilets, sewage holding tanks, sewage treatment systems and portable chemical toilets. Onshore infrastructure to support sewage discharge regulations is either concerned with removing sewage from fixed holding tanks onboard vessels through the use of sewage pump-out systems or with providing onshore facilities where the contents of removable holding tanks or portable chemical toilets can be disposed. Waste pumped ashore using any of these sewage pump-out methods can be treated on site (e.g., using septic systems) or pumped from site to a municipal sewage treatment plant by direct connect or transfer using tanker trucks for treatment with other municipal sewage effluent (ANZECC 1997:9). Each of these options is discussed in this Appendix, along with the most common issues raised by boaters regarding their use.

While the sewage management approaches for larger commercial vessels and oceangoing ships also typically target the installation of infrastructure onboard vessels, combined with the provision of shore-based infrastructure, the systems used are quite different. Due to a larger amount of space and power drawdown available, larger ships are able to utilise a wider range of sewage treatment options including: biological (aerobic) systems adapted from the technology used in land-based sewage treatment plants; physical/chemical systems which separate part of the liquid for treatment; and electrochemical total-pass-through systems which converts the salt in sea water into sodium hypochloride while oxidising sewage solids as they pass through the active electrolytic cell (Marine Engineers Review 1993; Shipping World & Shipbuilder 1993; The Motor Ship 1991).
**Marine toilet**

The most common form of equipment to receive and dispose of excrement onboard a vessel is a marine toilet, or marine head as it is commonly referred to by mariners. Throughout history, for all intents and purposes, the part of the marine toilet that the boater sits on has been consistent with, or at least comparable to, the toilets used on dry land. Historically, the style of marine toilet used onboard vessels has changed in line with changes to land-based sanitation arrangements. For instance, in the fifteenth to eighteenth centuries vessels incorporated pissdales, garderobes and a range of seating positions on the bow of the vessel (Simmons 1985) which as far as practicable reflected the style of the sanitary appliances used on land at the same time. Similarly, the introduction of flushing water closets on board ships paralleled their introduction on land with extensive use taking place after 1800 (Simmons 1997). In terms of their design aesthetic and user interface the marine toilets installed on vessels are almost identical to their land based counterparts.

A contemporary marine toilet, like those in image A4.1, is flushed using either fresh or sea water. It is built to receive and discharge sewage but not to retain it for an extended period of time (i.e. beyond the initial flush) or to treat it.

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2 Because the bow is at the front or head of the vessel the toilet onboard is colloquially referred to as the head in reference to the lavatories found in the forepart of ships (King 2000:231). Heads were placed on the both the weather or wind facing side and the lee or sheltered side of a vessel. Sailors were expected to use the leeside heads so that effluent would fall clear into the sea (Dear & Kemp 2005:259).
Figure A4.1 shows the most typical marine toilet installation configurations. The most common way that marine toilets are installed in smaller vessels is as a flow-through toilet which discharges raw sewage directly into the receiving waters. The direct flow-through head configuration is the closest to the ‘flush and forget’ sewer system used on land. All other configurations—such as connection to a holding tank or treatment system to control the timing, location and quality of discharges—require some kind of consciousness of the sewage waste generated and some degree of action by the boater with relation to the discharge or treatment of the waste. Put simply, some further physical and psychological interaction with the sewage post-flush.

**Sewage holding tanks**

In terms of their land-based counterpart, sewage holding tanks, or sullage tanks, can be conceived of as something akin to a seaborne cesspit. Holding tanks are watertight, covered receptacles designed to receive and hold sewage waste on board vessels for later disposal. Holding tanks may be configured to allow discharge directly into the water, discharge into an onboard treatment system, or pump-out using a sewage pump-out facility. Sewage holding tanks can be constructed from flexible or moulded plastic (polyethylene), fibreglass, reinforced plastic or metal (image A4.2).

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3 And, if required by law, to also hold galley wastes (wastewaters generated within the kitchen area of a vessel) and greywater (wastewaters generated from domestic activities such as laundry, dishwashing and bathing).
Retrofitting a holding tank into an existing vessel can be problematic, particularly if it is to be installed in a smaller recreational vessel or where the original marine head is located near or below the boat’s waterline. Broadly speaking the issue here is that pumps would be required to move the sewage waste and flushing water from the bowl of the toilet ‘uphill’ to the holding tank if it is installed above the waterline. If on the other hand the holding tank is able to be installed below the waterline gravity will draw the waste into the holding tank from the bowl.

It has been suggested that the installation of a sewage holding tank can increase vessel displacement and may in some cases affect a vessel’s stability (Waterways Authority 2000:59). The installation of holding tanks is also unpopular with many recreational boaters due to the potential for offensive odours (Strand & Gibson 1990) and claims are often made regarding the potential for the safety of storing sewage onboard in relation to the potential for asphyxiation or explosion from sewage gas build up due to inadequate ventilation or improper installation or use. The potential explosive hazard from hydrogen sulphide production in ship sewage tanks from sulphate reducing bacteria has been explored by the Australian Department of Defence (Fletcher 1998), however, it should be noted that globally very few fatal incidents have been attributed to gasses from holding tanks and these have invariably occurred on larger vessels. The most cited of these occurred in 1992 when two children died as a result of inhaling fumes of the sewage system on a ferry in the Irish Sea (Murdoch 1992; Marine Engineers Review 1993) and in 1985 when three sailors from the Royal Australian Navy died due to inhalation of hydrogen sulphide from stored sewage onboard a naval ship (Hodgeman et al 1995).
Although a vessel may be mandated to install a holding tank, merely having a holding tank installed does not significantly decrease the probability of boaters engaging in illegal sewage dumping practices (Carey et al. 1992:191). The motivations for illegal discharge behaviour by recreational boat owners, even those who have gone to the expense of installing a holding tank, can be considerable. These include avoiding the financial costs associated with using onshore sewage pump-out facilities, but can also include avoidance of the time involved in pumping-out or queuing to use a pump-out facility or a desire to avoid the odours involved in storing and pumping out sewage waste from a holding tank (Strand & Gibson 1990) or, indeed, to avoid contact with the sewage itself during a pump-out operation.

**Sewage pump-out systems**

As a signatory to MARPOL, Australia is required to provide adequate waste reception facilities for all wastes generated by shipping and boating activities for those Annexes which have been ratified (ANZECC 1997:5). The government is not responsible for installing sewage pump-out facilities. Instead the provision of onshore sewage pump-out facilities is undertaken by marinas. In most instances this is on a voluntary cost-recovery basis, however, the installation of appropriate waste reception facilities can be a development consent condition for marinas in parts of Queensland such as the Great Barrier Reef Marine Park (GBRMPA 1994:50).

Sewage pump-out systems remove sewage from vessel holding tanks. The most common forms of marina-based pump-out facilities include marina-wide sewage pump-out systems which include one or more centrally located sewage pump-out stations; vessels requiring the pump-out service dock at the pump-out station and a flexible hose is connected to a wastewater fitting on the deck of the vessel (image A4.3). Slip-side sewage pump-out systems provide continuous sewage collection facilities at each slip (docking place for a vessel). Portable/mobile sewage pump-out systems are similar to marina-wide systems with the exception that the pump-out stations are mobile or self-propelled mobile sewage pump-out units (image A4.4).
Some problems have been encountered in Queensland in getting marinas to voluntarily install sewage pumpout stations and for local councils to accept the waste. Technical problems can arise from the installation, operation and maintenance of sewage pump-out facilities and operators need to consider a number of factors including the characteristics of the sewage to be received such as the volumes of sewage, the frequency of pump-out and the salt or chemical content of the sewage (ANZECC 1997:20).

However, in many jurisdictions, marinas have been reluctant to install sewage pump-out infrastructure for economic reasons relating to the high cost of installation and maintenance (Fields 2003) but low usage rates by boaters (Walker et al 1991) and

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4 To help to defray the costs of installation, in the early 1990s the United States government instituted a subsidy scheme to assist marinas to install pump out facilities such as dockside pumpout stations, portable toilet dump stations, and mobile pump out vessels. However, a condition of this funding was that marinas were required to keep pumping out affordable by charging no more than $5 per pumpout (Field 2003:A222). Despite these measures, where installed there is generally little demand for or use of sewage pump-out stations as the majority of recreational boaters prefer to dump at sea (Walker et al 1991).
concerns that deodorant chemicals\textsuperscript{5} used to control sewage odours in boat holding tanks could possibly cause marina septic tanks to malfunction (Walker et al 1991). Some Councils have also expressed concern that the salt content from salt water flushing toilets could affect their treatment systems because in the case of a large marina in a small coastal town, it is possible that the volume and strength of sewage pumped-out may be equivalent to or more than the amount generated by the town itself (ANZECC 1997:21) thus affecting the potential reuse of the treated sewage or water or potentially damaging the sewage treatment plant itself. All of these concerns were also raised in the Queensland by local councils, marina operators and boaters, and in parliamentary debate.

Health concerns are often raised in relation to the likelihood of improper use of pump-outs by boaters including spillage (Fields 2003; Stubbs 2004) and the unwillingness of both boat owners and marina staff to pump-out sewage due to the claimed perceived health risks associated with contact with the sewage (Marina Association in Waterways Authority 2000:16), though it is likely that the ‘yuck’ factor also plays a significant role in these framing these concerns. When they are provided, pump-out stations are rarely used by boaters when other options, including illegal discharge, are available (Walker et al 1991). Common reasons cited for the non-use of sewage pump-out facilities by recreational boaters include the inconvenience of pump-out locations (Shafer & Yoon 1998) or having to wait when other boaters are using the pump-out facilities during peak use periods (Brown 2001). Other issues include the cost of using pump-out facilities and a lack of personnel other than the boat owner, such as a dockhand, to perform the pumping task (Shafer & Yoon 1998).

A similar situation has been observed in other jurisdictions where many marina operators are disinclined to install them due to “the occasional spill and routine odor problem” (Strand & Gibson 1990:283) and that fact that sewage pump-out facilities are generally not profitable because many recreational boaters refuse to use them or will only use them if the service is provided free of charge and dockhands are available to

\textsuperscript{5} Typical products used for holding-tank odour control combine an active chemical ingredient to retard degradation with perfumes and colouring additives. Common chemicals included in these products include formaldehyde, quaternary ammonium, steroid saponin, zinc and aluminum sulfates, enzyme formulations, and a benzyl ammonium chloride (Walker et al 1991:442)
undertake the pump out operation. As a result, sewage pump-out systems involve the use of mobile devices such as tankers which are referred to as “muck trucks” (image A4.5) or sewage pump-out vessels which draw up alongside a vessel where ever it is moored (image A4.6) have become increasingly popular. These systems can return the waste to be treated onsite through a septic system, pump it directly into the sewer to be integrated into the municipal sewer system or remove it for treatment at an offsite location.

![Image A4.5: Sewage pump-out tanker, Brisbane, Queensland](image)

**Macerators**

Macerators are often installed in vessels to grind or physically pulverise the solid toilet waste into small particles before it is discharged overboard or into a holding tank or treatment system (image A4.7). Macerators do not treat waste. Instead a macerator is generally installed to improve the efficacy of sewage treatment systems, reduce the chance of blockages in holding tanks, and minimise the visual appearance of discharges from direct flow-through heads. Maceration does little to reduce adverse health effects.
of raw sewage, but it does allow more rapid dilution in seawater; their use serves only
cosmetic or aesthetic purposes (Lewis 2004:5). As a result, macerators are generally the
minimum requirement for flow through heads because they are considered to address
visible pollution in terms of decreasing the size of sewage solids and paper so that they
are not as easily detectable in the receiving waters after discharge. However, the
discharged macerated sewage still leaves a brown stain when discharged before it is
diluted.

**Image A4.7: macerating units** [photos: Troy Byrnes, used with permission]

**Onboard sewage treatment systems**

Onboard sewage treatment systems treat, disinfect and deodorise sewage waste by
chemical or other means. The most common sewage treatment systems are macerator-
disinfecter systems in which the marine toilet is connected to a chamber where solids are
ground up and the mixture is dosed with a disinfectant before being discharged
overboard. Disinfection may be provided by the addition of a commercial chemical
disinfectant or through the use of a device which produces chlorine by passing an
electrical current through seawater using the sodium chloride readily available in the
seawater to produce hypochlorous acid to oxidise and disinfect the sewage waste prior to
discharge (L. Kavanagh 2005:21). Relative to a sewage holding tank, the use of these
systems decrease boater contact with sewage before and during disposal (images A4.8 –
A4.10).
Many jurisdictions mandate the minimum effluent characteristics to be produced by such treatment systems and often include standards for biological oxygen demand, chemical oxygen demand, pH, total suspended solids and faecal coliform levels. Some also consider the nutrient local of the effluent produced. The quality of this treated sewage effluent is often required to be proven through regular testing of the system by a recognised testing authority. However, some jurisdictions have been criticised for setting effluent standards that existing sewage treatment systems for smaller vessels are unable to achieve.
As shown in table A4.1 standards for treated sewage discharges from vessels are generally measured across the key parameters of faecal coliform, total suspended solids and 5 day biochemical oxygen demand. Other parameters that may also be measured are chemical oxygen demand, pH, dissolved oxygen, total nitrogen and phosphorus, and residual chlorine. The only aesthetic treatment standards relate to the need to macerate sewage prior to disposal to minimise the visual impact of sewage disposal, in terms of reducing visible floating solids and discoloration of the surrounding water, and to aid its rapid dispersal into the surrounding waters.

Due to the considerable expense involved in purchasing and installing these sewage treatment systems in the past, they have been most often fitted to commercial vessels. However, the tightening of discharge requirements and increases in ‘no discharge’ areas has seen their installation becoming increasingly popular on recreational vessels by boaters who can afford them because they minimise the need to store sewage onboard. While they are becoming a preferred option of sewage management, treatment systems can be difficult to retrofit and may require a large power source, usually battery supplied, that small boats and sailboats may not have. Another disincentive to their installation is that they are often considered to be easily clogged, hard to fix and expensive to replace (Strand & Gibson 1990).
## Table A4.1: Comparison of standards for treated sewage from vessels under various regulations

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>raw sewage</strong></td>
<td><strong>faecal coliform</strong></td>
<td><strong>total suspended solids</strong></td>
<td><strong>BOD5, COD &amp; Dissolved Oxygen</strong></td>
<td><strong>pH</strong></td>
<td><strong>nutrients (nitrogen &amp; phosphorus)</strong></td>
</tr>
<tr>
<td>[average estimates]</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>103,000,000 faecal coliforms/100ml (US EPA 2008:2)</td>
<td>TSS ≤ 350 mg/L (Doğan, Alpaslan &amp; Serfoglu 2003:59)</td>
<td>BOD5 ≤ 350 mg/L (Doğan, Alpaslan &amp; Serfoglu 2003:59)</td>
<td>COD ≤ 940–1930 mg/L (L. Kavanagh 2005:4)</td>
<td>6.5 (Gross 2005:2)</td>
<td>total nitrogen 26 – 75 mg/L (Gross 2005:2)</td>
</tr>
<tr>
<td><strong>MARPOL treatment standard — comminuted</strong> and <strong>disinfected sewage</strong></td>
<td>≤ 250 faecal coliforms/100ml</td>
<td>onshore testing TSS ≤ 50mg/L</td>
<td>onshore testing TSS ≤ 100mg/L</td>
<td>No minimum standard proposed</td>
<td>No minimum standard proposed</td>
</tr>
<tr>
<td><strong>sewage treatment plant</strong></td>
<td>≤ 100 thermotolerant coliforms/100 ml</td>
<td>onshore testing TSS ≤ 35mg/L</td>
<td>onshore testing TSS ≤ 35mg/L</td>
<td>No minimum standard proposed</td>
<td>No minimum standard proposed</td>
</tr>
<tr>
<td><strong>approved effluent</strong></td>
<td>≤ 150 faecal coliforms/100ml</td>
<td>TSS ≤ 30mg/L</td>
<td>BOD5 ≤ 20 mg/L</td>
<td>6.5 – 8.5</td>
<td>total nitrogen 10 – 15mg/L</td>
</tr>
<tr>
<td><strong>unapproved effluent</strong></td>
<td>No minimum standard proposed</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>untreated effluent</strong></td>
<td>&lt; 1000 faecal coliforms/100ml</td>
<td></td>
<td></td>
<td></td>
<td>No minimum standard proposed</td>
</tr>
<tr>
<td><strong>untreated effluent</strong></td>
<td>No minimum standard proposed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOMPA treatment standard — Grade C</strong></td>
<td>≤ 150 thermotolerant coliforms/100ml mandatory level</td>
<td>No minimum standard proposed</td>
<td>No minimum standard proposed</td>
<td>6 – 8.5 indicative level</td>
<td>total nitrogen 400 – 1700mg/L indicative level</td>
</tr>
<tr>
<td><strong>TOMPA Grade B</strong></td>
<td>≤ 150 thermotolerant coliforms/100ml mandatory level</td>
<td>TSS ≤ 50mg/L above suspended solids contents of ambient water used for flushing mandatory level</td>
<td>No minimum standard proposed</td>
<td>6 – 8.5 indicative level</td>
<td>total nitrogen 210 – 940mg/L indicative level</td>
</tr>
<tr>
<td><strong>TOMPA Grade A</strong></td>
<td>≤ 250 thermotolerant coliforms/100ml mandatory level</td>
<td>TSS ≤ 100mg/L above suspended solids contents of ambient water used for flushing mandatory level</td>
<td>BOD5 ≤ 50mg/L mandatory level</td>
<td>6 – 8.5 indicative level</td>
<td>total nitrogen 20 – 15mg/L indicative level</td>
</tr>
</tbody>
</table>
Portable chemical toilets

Portable chemical toilets, often referred to as a port-a-potty or porta-potti, are most commonly used in recreational vehicles but their use is becoming more common in vessels as more stringent prohibitions for sewage discharges are introduced. Although designed to mimic the look of a standard shore-based toilet, a portable chemical toilet could be considered to be akin to a modern chamber pot as it is used to collect sewage either for later disposal ashore or in open waters where the discharge of untreated sewage is permitted.

Portable chemical toilets are a relatively inexpensive alternative because they do not need to be plumbed into the vessel and can fit into relatively confined spaces, however, due to their compact size the lower tank can fill up relatively quickly, particularly if there are a number of people using the unit (Webster & Cunningham 2005). However, many of these types of toilet have removable/replaceable cartridges/cassettes allowing for additional cartridges/cassettes to be purchased and carried onboard to increase the volume of sewage that may be held. Because these portable toilets can be used in vessel spaces that aren’t dedicated to ablutions functions there can be a lack of privacy for those using the unit onboard a vessel. However, despite their reliability and simplicity, one of the key disadvantages of these units is that boaters need to physically transport the sewage between the vessel and shore-based disposal systems to empty the contents.

As shown in image A4.11, the operation of the unit relies on gravity to feed the sewage, toilet paper and water used to clean the bowl into a removable lower tank containing chemicals to eliminate odours. This waste is held in the lower holding tank until it is disposed of into an onshore toilet or a dedicated onshore disposal unit or dumping station where it is then flushed into the local sewerage system. It should be noted that the chemicals contained in portable chemical toilets can be detrimental to small sewage treatment systems if they are discharged directly and form a significant proportion of the sewage feed (ANZECC 1997:22).
Portable toilet dumping stations

A dump station is an onshore facility designed to accept the contents of portable chemical toilets. Portable toilet dump stations, such as the ones pictured below (images A4.12–A4.14), are often located near boat ramps or marina slips. The sewage dumped into the station goes into a sewer or a septic system. The stations are used by opening a lid at the top of the station and tipping in the contents of the lower cassette once it is removed from the larger toilet unit. Dump stations often have running water for rinsing the cassette after it is emptied. Although the stations often automatically flush-out when the lid is closed again there is often a noticeable odour at the stations. The prominent and open positions (primarily for ventilation and access) of the units may be a deterrent for use by some boaters who may feel exposed and that they lack privacy when disposing of their waste. Because some units are locked to discourage misuse and the dumping of non-sewage related materials dumpers may have to access a key from a marina office to access them which restricts times of dumping to office opening hours, thereby minimising the potential for dumping under the cover of darkness.
Image A4.13: portable toilet dumping station, Mooloolaba Yacht Club, Mooloolaba, Queensland
[installed photos: Deanna Grant-Smith; pre-installation photo: Troy Byrnes, used with permission]

Image A4.14: portable toilet dumping station, Manly, Queensland
[photos: Troy Byrnes, used with permission]
APPENDIX 5

Regulatory regime for the regulation of vessel sourced sewage

The discharge of sewage from ships is regulated at the state, national and international level. This Appendix provides an overview of these different sewage discharge regulatory regimes as background information to support the case study outlined in Chapter 5.

Figure A5.1 provides an overview of the regulatory boundaries of the key legislation for the control of ship-sourced sewage discharges in Queensland between 1995 and 2010. This is followed by a discussion regarding Australian and Queensland maritime zones. The maps (A5.1 and A5.2) provided in this Appendix to describe Queensland’s maritime zones were produced using the Australian Marine Spatial Information System (AMSIS) web mapping facility provided by Geoscience Australia\(^1\). Figures (A5.2 and A5.3) to support this discussion are sourced from Geosciences Australia. A brief description of each regulation and the maritime jurisdiction within which it operates is then provided. A detailed comparison of these instruments as they apply to the regulation of sewage discharges from recreational vessels is provided in table A5.1.

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\(^1\) AMSIS incorporates data provided by various Commonwealth government agencies and private sector organisations. For details of contributors refer to [www.ga.gov.au/amsis/datacontributors.jsp](http://www.ga.gov.au/amsis/datacontributors.jsp). Maps produced using AMSIS may also incorporate information provided by end users of AMSIS.
Figure A5.1: Key legislation for the control of ship-sourced sewage discharges, Queensland
(expanded from State of the Environment Qld 1999, Environment Protection Agency)
**Australian maritime zones**

As shown in figure A5.2 Australia has four maritime zones: coastal waters, territorial sea, contiguous zone, and exclusive economic zone.


**Territorial Sea Baseline (TSB)**

Australia’s maritime zones are measured from the territorial sea baseline (shown as a yellow line in figure A5.2). The normal baseline corresponds with the low water line (level of lowest astronomical tide) along the coast, including the coasts of islands.

**Queensland Coastal Waters**

Queensland coastal waters (shown in dark blue in figure A5.2) are defined as the belt of water between the land and a line three nautical miles seaward of the territorial sea baseline. It is important to note that in many cases coastal waters can extend significantly past three nautical miles from the coastline.

**Territorial Sea**

The Territorial Sea (shown in purple in figure A5.2) is a belt of water not exceeding twelve nautical miles in width measured from the territorial sea baseline. Australia’s sovereignty extends to the territorial sea and is exercised in accordance with international law.

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2 Low tide elevations which are defined as naturally formed area of land surrounded by and above water at low tide but submerged at high tide may be used as the normal baseline if they are wholly or partly within twelve nautical miles of the coast.
law. It should be noted that the territorial sea around certain island in the Torres Strait Protected Zone is three nautical miles. The Protected Zone (shown as inside the orange line in figure A5.2) was established under the 1985 Torres Strait Treaty between Australia and Papua New Guinea for the purposes of protecting the traditional way of life and livelihood (including traditional fishing and freedom of movement) of Australians who are Torres Strait Islanders and of Papua New Guineans who live in the coastal area of Papua New Guinea in and adjacent to the Torres Strait. It was also established to protect and preserve the marine environment and the indigenous flora and fauna.

**Contiguous Zone**
The Contiguous Zone (shown in green in figure A5.2) is a belt of water contiguous to the territorial sea, the outer limit of which does not exceed twenty-four nautical miles from the territorial sea baseline. In this zone, Australia may exercise controls necessary to prevent and punish infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea.

**Australian Exclusive Economic Zone**
The Exclusive Economic Zone (shown in tan in figure A5.2) is an area beyond and adjacent to the territorial sea. The outer limit of the Exclusive Economic Zone does not exceed two hundred nautical miles from the baseline from which the breadth of the territorial sea is measured.

**Mapping Australia's Maritime Zones**
Figure A5.3 illustrates the relationship between maritime features and these limits and zones. Map A5.1 illustrates Australia’s maritime zones while Map A5.2 provides details of these maritime zones in the Queensland context highlighting Queensland coastal waters.
Figure A5.3: Relationship between maritime features, limits and zones

Map A5.1: Australia’s maritime zones
Map A5.2: Queensland Coastal Waters

Acknowledgement: This map was produced using the Australian Marine Spatial Information System (AMSIS) web mapping facility provided by Geoscience Australia. AMSIS incorporates data provided by various Commonwealth government agencies and private sector organisations. For details of contributors refer to www.ga.gov.au/amsis/datacontributors.jsp. Maps produced using AMSIS may also incorporate information provided by end users of AMSIS.
International regulations governing ship-sourced sewage discharges

Despite general agreement that vessel contributions to marine pollution are comparatively small relative to other sources (Brunton 1996; Corbijn 2005; Williams 1996), there has been an increasing focus on the potential environmental impacts of commercial shipping activities since the introduction of the Interational Maritime Organisation [IMO], a United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. Established in 1958, following a 1948 convention, the IMO was the first international body devoted exclusively to maritime matters.

The IMO is a primarily a technical organisation and most of its work is carried out in a number of committees and sub-committees. The Marine Environment Protection Committee (MEPC) was established by the Assembly in November 1973 and is responsible for coordinating the organisation’s activities in the prevention and control of pollution of the marine environment from ships (IMO 2009). These controls were also strengthened by the introduction of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter [London Convention] and the United National Convention on the Law of the Sea [UNCLOS]. The London Convention has been in force since 1975 and prevents pollution of the sea by the dumping of wastes and other matters from vessels except in the course of normal operations which is covered explicitly under MARPOL. In 1993 the focus of the London Convention was broadened to specifically include the dumping of radioactive wastes, the sea-based incineration of sewage sludge and the dumping of industrial wastes including dredged spoils (Stokke 1998). The importance of the London Convention was also enhanced through the coming into force of UNCLOS which required parties to adopt legislation on ocean dumping at least as effective as the provisions of the London Convention (de La Fayette 1998). UNCLOS came into force in 1994 and sets limits on national jurisdiction over the sea and provides guidelines for restricting marine pollution and for enforcing violations of pollution regulations (Haward 1995:5, Schulkin 2002:119).
The 1954 Oil Pollution Convention [OILPOL] developed a large body of international rules and standards relating to vessel-sourced oil pollution, through binding legal agreements and non-binding recommendations or codes (Bodansky 1991). Although OILPOL represented the first serious attempt to control vessel-sourced pollution in a global context following the grounding of the *Torrey Canyon* in 1967, there was international agreement that the measures contained in OILPOL were insufficient to deal with major marine pollution events from vessels (Heathcote 2002; Knapp & Franses 2009:841). In 1973 the IMO convened a major conference to discuss the problem of marine pollution from ships which resulted in the adoption of the first ever comprehensive anti-pollution convention, the *International Convention for the Prevention of Pollution from Ships*, known as MARPOL.

MARPOL

MARPOL established universally accepted maritime transport standards relating to pollution control in ship construction, equipment and operating procedures, survey, classification and inspection. The convention also placed obligations on ship owners and masters to meet the standards set down in the technical annexes of MARPOL to prevent pollution from ships arising from accidental pollution and routine operations.

MARPOL has six annexes which limit the discharge of the following pollutants from vessels:

1. **Oil** including all petroleum products, oily mixtures and oily residues.
2. **Noxious liquid substances in bulk** focussing primarily on chemicals which, if discharged into the marine environment, are liable to be a hazard to human health, aquatic life or other environmental resources.
3. **Harmful substances carried by sea in packaged form** which again refer predominately to chemicals but specifically to those in packaged form such as containers or tanks.
4. **Sewage** including drainage and other wastes from any form of toilets, urinals and water closet scuppers; drainage from medical premises (such as dispensary or sick bay) via wash basins, wash tubs and scuppers located in such premises; drainage from spaces containing living animals; or other waste waters when mixed with these drainages.

3 A scupper is an opening, generally at or near deck level, installed for the drainage purposes.
5. **Garbage** including food scraps, plastics, metals, glass and timber wastes generated aboard ships during the course of normal vessel operations.

6. **Air pollution** focussing on limiting nitrogen and sulphur oxides emissions (commonly referred to as NOx and SOx emissions) from ship exhausts, and the deliberate emission of ozone depleting substances from vessels.

Together, these six annexes provide an overarching framework for the prevention of pollution from vessels, but are not sufficient to protect the marine environment from waste discharges without ratification and implementation by sovereign states. In order for MARPOL’s annexes to be binding, they must first be ratified by a total number of member countries whose combined gross tonnage represents at least 50% of the world’s gross tonnage (Copeland 2007:7). As shown in figure A5.4, although it took nearly three decades, all six Annexes have now been ratified by the requisite number of nations, however, it should be noted that MARPOL’s sewage annex was not entered into force internationally until thirty years after the introduction of MARPOL and only following significant amendments to its content.

Julian (2000) suggests that the most significant reason for the delay of the ratification was the requirement for shore-based waste reception facilities but that advances in shipboard treatment equipment which made sewage treatment less costly and difficult facilitated its final international entry into force. However, less onerous discharge requirements and a loosening of the vessels to which the annex applied—the original text focussed on vessels 200 tons gross tonnage and above and licensed to carry more than ten passengers, however, the text was amended prior to ratification to increase the minimum tonnage from 200 to 400 and passenger numbers from ten to fifteen—are likely to have been contributing factors. It is also possible that its passage was impacted by the public debate, driven by environment activist organisations, regarding cruise ship
sewage discharges in North America, particularly off the Alaskan coast. In 2000, Congress enacted legislation restricting cruise ship discharges in US navigable waters within the state of Alaska. The states of California, Alaska, and Maine have also enacted state-specific laws concerning cruise ship pollution, and a number of other US states have entered into voluntary agreements with industry to address management of cruise ship discharges.4

Through its sewage annex, MARPOL is the main international convention covering the prevention of pollution of the marine environment from accidental or operational sewage discharges from ships. This annex contains a set of regulations regarding the discharge of sewage into the sea, ships’ equipment and systems for the control of sewage discharge, the provision of facilities at ports and terminals for the reception of sewage, and requirements for survey and certification. This annex only applies to ships on international voyages which are 400 tons gross tonnage and above, or certified to carry fifteen persons or more. Under MARPOL, every ship to which the sewage annex applies needs to comply with discharge requirements based on the sewage treatment and management equipment employed. This determines where sewage may and may not be discharged from the vessel.

MARPOL was drafted on the understanding that on the high seas, the oceans are capable of assimilating and dealing with raw sewage through natural bacterial action, however, this annex prohibits ships from discharging sewage within a specified distance of the nearest land, unless they are operating an approved sewage treatment plant. MARPOL does not specify the sewage treatment and storage equipment to be installed but it does specify the characteristics or minimum quality of sewage effluent to be produced by and discharged from them. This is because the system capacity and type will depend on several variable factors including: the flushing system (i.e. the quantity of water used per flush); the number of people on board; and the time interval before discharge can be carried out (Morely 2007:11).

4 See GAO 2000; Copeland 2007; Dobson & Gill 2006; Klein 2007; and Schulkin 2002 for more detailed discussion of the issues in this debate.
For ships covered under MARPOL, the convention provides a discharge regime based on a combination of the characteristics of the sewage effluent produced by various sewage treatment and disposal technologies and the vessels distance from nearest land at the time of discharge (figure A5.5). For example, discharges are permitted from a vessel using an approved maceration and disinfection system provided the vessel is more than three nautical miles from the nearest land at the time of discharge. Because some vessels may not be able to discharge sewage into the ocean under these requirements, MARPOL also requires governments to provide adequate waste reception facilities at ports and terminals for the reception of sewage.

While MARPOL’s sewage annex and supporting texts are comprehensive and significant effort is expended to keep them both technically up to date and environmentally relevant (Finlay & Warner 2005), MARPOL has only been marginally effective in reducing waste from large ships (Dehner 1995:510). In part this is because their implementation of MARPOL’s provisions must be the responsibility of individual sovereign states because the international system lacks effective enforcement machinery (Bodansky 1991:727). Furthermore, because MARPOL focuses on vessels on international voyages and carrying 15 or more persons or >400 tonnes gross tonnage it tends to have a limited impact on recreational vessels.

While MARPOL provides a precise definition of which discharges at sea are illegal, as an international convention it does not contain specific enforcement or penalty provisions. Instead it requires sovereign states (referred to as State Parties) to enact legislation to prohibit discharges within their territorial seas by providing sanctions under their laws.
State parties must accept the annexes relating to oil and noxious liquid substances in bulk but the adoption of the remaining four annexes is considered voluntary. By the mid 1990s Australia had ratified all MARPOL annexes, with the exception of the sewage annexe which was not ratified by Australian until almost a decade later. Australia ratified the annexes concerning the disposal of oils and oily residue in the late 1980s and those relating to chemicals and garbage in the early 1990s. Australia introduced parallel Commonwealth legislation through the Protection of the Sea (Prevention of Pollution from Ships) Act 1983. Australia ratified the annex relating to sewage in 2004. The annex relating to air pollution was adopted internationally in September 1997 (Davidson 2004:1) but is not yet in force.

Commonwealth regulations governing ship-sourced sewage discharges

Commonwealth statutes for the regulation of ship-sourced sewage discharges need to be understood in the light of the Offshore Constitutional Settlement between Commonwealth and States of 1979. Application of s51(xxviii) of the Constitution and the Coastal Waters (State Powers) Act 1980 gives power to States to legislate up to 3 miles offshore. Commonwealth laws on marine pollution and environmental protection apply outside the 3 mile limit unless the State or Territory has not made a relevant law within the limit, e.g. where State Act only partly covers the field. The key commonwealth regulations for managing the discharge of sewage from ships are Protection of the Sea (Prevention of Pollution from Ships) Act 1983 and the Great Barrier Reef Marine Park Regulations 1983.


To give effect to MARPOL within its territorial waters Australia developed national ship-sourced marine pollution prevention legislation. The first of these, the Protection of
the Sea (Discharge from Oil from Ships) Act 1981, dealt with the discharge of oil and oily waste. Two years later, this was replaced by the Protection of the Sea (Prevention of Pollution from Ships) Act 1983 which contained provisions to give effect to the first two annexes of MARPOL relating to oils and noxious liquid substances. This Act was progressively amended to include garbage, sewage and harmful substances in packaged form as these annexes were ratified and entered into force.

The Protection of the Sea (Prevention of Pollution from Ships) Act 1983 has seven parts which each includes an interpretation provision giving to its terms the same meaning as the same term in the equivalent MARPOL Annex. Although MARPOL’s sewage annex did not enter into force in Australia until 2004, sewage provisions which essentially mirror MARPOL’s requirements have been reflected, though not enacted in Part IIIB of the act since a 1986 amendment. Part IIIB of the act is concerned with the regulation of sewage discharges.

The Act contains specific restrictions related to the discharge of sewage in the Antarctic region (Part IIIB Division 1). Division 1 commenced 29 December 2000 and was enacted to give effect to Australia’s obligations under the Antarctic Protocol. It contains specific provisions dealing with the discharge of (untreated) sewage in the Antarctic Area.

Division 2 of this part refers to discharges in other sea areas. Under the Act, sewage discharges are subject to the following requirements. Untreated sewage may only be discharged at a distance of more than 12 nautical miles from nearest land, providing that sewage held in holding tanks is not discharged instantaneously, but at a ‘moderate rate’ when the ship is proceeding at a speed of not less than 4 knots. Comminuted and disinfected sewage may only be discharged at a distance of more than three nautical miles from the nearest land. Effluent from an IMO approved sewage treatment plant may be discharged at any location providing the effluent does not produce visible floating solids or cause discolouration of the surrounding water.
In a recent Marine Notice (17/2008) the Australian Maritime Safety Authority advised that as of 27 September 2008 all new and existing ships 400 gross tonnage and above or ships of less than 400 gross tonnage certified to carry more than 15 persons were required to be equipped with one of the following sewage systems:

- an approved sewage treatment plant;
- an approved sewage comminuting and disinfecting system, fitted with facilities for the temporary storage of sewage when the ship is less than 3 nautical miles from the nearest land; or
- a holding tank which is of a capacity adequate for the retention of all sewage, having regard to operation of the ship, the number of persons on board and other relevant factors which has a means to visually indicate the volume of its contents.

This is supported by the information contained in Marine Orders Part 96 Marine Pollution Prevention Sewage Issue 2 (AMSA 2009) which prescribes the equipment, survey and certificates required by vessels to which Annex IV applies for the purpose of preventing marine pollution by sewage.

Like its parent MARPOL, the Protection of the Sea (Prevention of Pollution from Ships) Act 1983 does not generally apply to recreational vessels because its focus is on large ships 400 gross tonnage and above operating in Australian ports or territorial sea to the edge of the EEZ. However, it should be noted that AMSA (n.d.:5) recently posted a summary of discharge standards for ships and smaller vessels operating in Australian waters that recommended that vessels of all sizes, including those on domestic voyages, should comply with MARPOL’s discharge provisions even where local laws do not prohibit discharge.

**Great Barrier Reef Marine Park Regulations 1983 [GBRMPR 1983]**

The Great Barrier Reef Marine Park Authority (GBRMPA) has management responsibilities for waters of the Queensland coast within the boundaries of the Great Barrier Reef Marine Park. In recognition of the significant environmental values of the Great Barrier Reef World Heritage Area and the designation of the region as a

**Queensland regulations governing ship-sourced sewage discharges**

According to the Australian Maritime Safety Authority, as at March 2009, Queensland and Tasmania were the only states to have implemented complementary MARPOL legislation for sewage (AMSA 2009). At that time Queensland had two primary regulations for managing ship-sourced sewage discharges: the *Transport Operations (Marine Pollution) Act 1995* [TOMPA] and the *Environmental Protection Water Policy 1995* [EPP Water]. TOMPA was concerned with sewage discharges into coastal waters while the EPP Water was concerned with discharges into non-coastal waters. The ship-sourced sewage provisions contained in the EPP Water have since been incorporated into TOMPA. The Marine Parks Regulation 1990 and the Transport Infrastructure (Sunshine Coast Waterways) Management Plan 2000 also impose more strict conditions on discharges into the waters under their jurisdiction, namely marine parks and the Pumicestone Passage and adjacent waters respectively.

\textsuperscript{5} UNCLOS identifies certain categories of areas which may require higher standards of environmental protection. These Particularly Sensitive Sea Areas (PSSA) are an area of the marine environment that is deemed to require special protection from shipping activities as a result of its ecological, socio-economic or scientific attributes where such attributes may be vulnerable to damage by international shipping activities. There are currently eleven designated PSSAs including the Great Barrier Reef, the Torres Strait, the Galapagos Archipelago and the Baltic Sea (AMSA 2008b).

\textsuperscript{6} For a more detailed description of the evolution of sewage discharge regulations for the Great Barrier Reef Marine Park see Aston 2008.
The Transport Operations (Marine Pollution) Act 1995 regulates the release of sewage, oil, garbage, noxious liquid substances and harmful substances from ships (including small boats) into Queensland’s coastal waters, consistent with the requirements of MARPOL. The Act is administered by the Queensland Department of Transport. The overall purpose of the act is to “protect Queensland’s marine and coastal environment by minimising deliberate and negligent discharges of ship-sourced pollutants into coastal waters” (TOMPA). Part 7 of the act deals exclusively with ship-sourced sewage discharges. Specific details of discharge restrictions under the act and its associated Transport Operations (Marine Pollution) Regulation are discussed in detail in Chapter 5 of this thesis. The sewage provisions of the Transport Operations (Marine Pollution) Act 1995 apply to recreational vessels.

The Environmental Protection Act 1994 and Environmental Protection (Water) Policy 1997 were part of a legislative package that regulated the quality of Queensland waters and replaced the Clean Waters Act 1971. Administered by the Environmental Protection Agency, the policy regulated the release of sewage, oil, garbage, noxious liquid substances and harmful substances from ships (including small boats) into non-coastal waters. In practice this mostly covered small boats. In 2009 the policy was replaced by the Environment Protection (Water) Policy 2009 which does not include specific provisions for discharges from vessels, however, under the Section 20(2f) of the policy local governments are required to facilitate the management of sewage collected from vessels at boat harbours, marinas and moorings within their local government area. The sewage provisions of the Environmental Protection (Water) Policy 1997 applied to recreational vessels.

Marine Parks Regulation 1990 [MPR 1990]
Section 20 (2)(b)(i) of the now superseeded Marine Parks Regulation 1990 prohibited the discharge or deposit of human waste within a Marine Park without a permit if the vessel has a storage tank of a kind designed for the storage of this waste (e.g. holding tank) installed. Additionally, Section 20(2)(b)(iii) prohibited the discharge of human waste,
without a permit, within 500 metres of the seaward edge of a reef by any vessel. The sewage provisions of the *Marine Parks Regulation 1990* applied to recreational vessels. These requirements now form part of the *Marine Parks Regulation 2006*.

**Transport Infrastructure (Sunshine Coast Waterways) Management Plan 2000 [TISCWMP 2000]**

The sewage provisions of the *Transport Infrastructure (Sunshine Coast Waterways) Management Plan 2000* apply to recreational vessels, specifically liveaboard vessels, operating in the Pumicestone Passage and adjoining waters and the Noosa River upstream of Munna Point and adjoining waters. The plan requires that the operator of the watercraft ensure that none of the contents of the waste holding system be discharged into Sunshine Coast waters and that a fixed or mobile pump-out facility is used to empty the contents of the waste holding system while the vessel is in Sunshine Coast waters. The owner or operator of the vessel is required to keep a written record of the date when, and the place where, the contents of the system were discharged and the quantity discharged for each discharge of the waste holding system while the watercraft is in Sunshine Coast waters. The term waste holding system is legally defined in the plan as a waste holding tank connected to each source of sewerage or waste water on the vessel.
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>administering agency</td>
<td>Great Barrier Reef Marine Park Authority</td>
<td>Queensland Transport</td>
<td>Maritime Safety Queensland</td>
<td>Department of Environment</td>
<td>Queensland Transport</td>
<td></td>
</tr>
<tr>
<td>geographical coverage</td>
<td>waters of the Great Barrier Reef Marine Park</td>
<td>Queensland state coastal and tidal waters</td>
<td>Queensland coastal waters</td>
<td>Queensland non-coastal waters</td>
<td>State Marine Parks</td>
<td></td>
</tr>
<tr>
<td>ships covered</td>
<td>any ship but includes provisions for different ship categories.</td>
<td>any ship but includes provisions for different ship categories.</td>
<td>any ship fitted with a toilet S20(2)(i) any ship with a waste storage tank S20(2)(iii) any ship without a permit to discharge human waste</td>
<td>watercraft used for living on board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mandated management method</td>
<td>All toilets must be fitted with a macerator.</td>
<td>A holding tank and toilet must be fitted on all vessels &gt;10m in length.</td>
<td>All vessels fitted with a toilet toilets must be fitted with a macerator. Holding tanks not mandatory (unless declared ship fitted with toilet operating in nil discharge waters) but must</td>
<td>No specific method mandated</td>
<td>No specific method mandated</td>
<td>Installation of a waste holding system on live-aboard vessels</td>
</tr>
<tr>
<td>Discharge restriction regime for untreated sewage</td>
<td>Ships carrying ≥ 16 persons must store sewage and may discharge at least 1 nm seawards from the nearest reef, island, mainland or aquaculture facility. Ships carrying ≤ 15 persons may pump out untreated sewage (that has been reduced to a fine slurry) in GBRMP if outside a boat harbour or marina or more than 1 nm from an aquaculture facility.</td>
<td>Nil discharge into High Sensitivity Zone all ships. Nil discharge into Medium Sensitivity Zone all ships. Nil discharge into Low Sensitivity Zone large ships. N.B. Sensitivity Zones not defined in the regulation.</td>
<td>Nil discharge areas and untreated discharge areas defined. Where the discharge of untreated sewage is permitted it must first pass through a macerator.</td>
<td>Prohibited sewage discharges from vessels with holding tanks and those vessels required by law to have a holding tank. Prohibited sewage discharges in a mooring, docking or berthing area.</td>
<td>Prohibited discharge or deposit of human waste within a Marine Park, without a permit, if the vessel has a storage tank of a kind designed for the storage of this waste installed. Prohibited discharge of human waste, without a permit, within 500 metres of the seaward edge of a reef by any vessel.</td>
<td>Prohibits discharge from liveaboard vessels within Sunshine Coast waters.</td>
</tr>
<tr>
<td>Discharge restriction regime for treated sewage</td>
<td>Differential discharge regime for treated sewage by treatment grade. Sewage treated to GBRMPA’s tertiary standard in subregulation 135(3) can be discharged anywhere in GBRMP.</td>
<td>Nil discharge into High Sensitivity Zone all ships. Nil discharge into Medium Sensitivity Zone all ships. Nil discharge into Low Sensitivity Zone large ships. N.B. Sensitivity Zones not defined in the regulation.</td>
<td>Differential discharge regime for treated sewage by treatment grade. Treated sewage discharge areas defined with more stringent requirements for declared ships.</td>
<td>Prohibited sewage discharges from vessels with holding tanks and those vessels required by law to have a holding tank. Prohibited sewage discharges in a mooring, docking or berthing area.</td>
<td>Prohibits discharge from liveaboard vessels within Sunshine Coast waters.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 6
Queensland’s Legislative Process

This Appendix provides an overview of the Queensland legislative process to provide background information necessary to understand the case study presented in Chapter 5. This legislative process is shown in figure A6.1.

From policy to legislation
The Parliament of Queensland makes legislation or authorises the making of legislation by enacting an Act. The Parliament of Queensland consists of the Queen and the Legislative Assembly. In Queensland there is no legislative chamber or upper house. As a result, within the Queensland context legislation is passed by the Legislative Assembly and given Royal Assent in the name of Her Majesty by the Governor of Queensland. The normal flow of the legislative process is that a Bill is introduced into the Legislative Assembly, passed and agreed to, then given Royal Assent by the Governor and converted at that point into legislation.

From a Bill to an Act
A Bill is an expression of government policy and “should clearly deal with all matters of importance for the implementation of that policy” (DCP 2009:2.4). Matters of detail and matters likely to experience frequent change, such as fees, are generally contained in subordinate legislation like a regulation. Statue Law (Miscellaneous Provisions) Bills are used for minor amendments to legislation of a housekeeping nature. Matters are suitable for inclusion in a Statute Law (Miscellaneous Provisions) Bill “only if they are concise, minor and non-controversial” (DCP 2009:2.6).
Once presented to Parliament a Bill is ‘read’ three times. During the **first reading** of the Bill no motions made be made and no debate occurs. For the **second reading** copies of the Bill are distributed to all members and the Minister orally summarises that main provisions of the Bill for members. Debate is then adjourned for a minimum of thirteen (13) whole calendar days to allow members time to consider the Bill. During this
time the Bill is also considered by the Scrutiny of Legislation Committee which scrutinises the Bill in terms of application of fundamental legal principles (refer Qld Legislation Handbook for more details on these principles and their application) and its lawfulness. Free range debate from any interested member occurs upon resumption of the second reading debate after which each individual clause is considered in detail and amendments may be made. Finally, the third reading is generally a formality which occurs with little, if any, debate. At which time the Bill is agreed to (with amendment if required) or not agreed to.

Once a Bill is passed by the Legislative Assembly it is presented to the Governor of Queensland for Royal Assent. The Acts Interpretation Act 1954 s15A states that an Act commences on the date of Assent unless the Act expressly provides otherwise.

**Subordinate legislation**

Regulations are secondary or subordinate legislation made by executive council, usually describing detailed administrative or technical matters (Althaus, Bridgman & Davis 2007: 248). As a result many regulations cover issues that are likely to excite few people...However, it would be mistaken to think of them all as unimportant...[they] play a major part in crucial political issues (Page 1999:206).

In the case of significant subordinate legislation a Regulatory Impact Statement (RIS) must be prepared under the Statutory Instruments Act 1992. A RIS must be prepared for all subordinate legislation that is “likely to impose appreciable costs on the community or part of the community” (SI Act 1992 s43). Costs include burdens and disadvantages and direct and indirect economic, environmental and social costs. If the proposed subordinate legislation is likely to have a significant impact on a particular group of people or the public more generally S42(2) of the Statutory Instruments Act 1992 requires that the public be given at least 28 days to comment on the proposed subordinate legislation. The RIS and draft regulations are provided to the Scrutiny of Legislation Committee to be scrutinised in terms of application of fundamental legal principles (refer Qld Legislation Handbook for more details on these principles and their application) and its lawfulness.
APPENDIX 7

Key stakeholder group membership

This Appendix (table A7.1) provides a list and description of the membership of the key stakeholder group formed in 2000 to provide input into the development of legislative amendments to the sewage provisions of the *Transport Operations (Marine Pollution) Act 1995*. The work of this group is discussed in Chapter 5.

<table>
<thead>
<tr>
<th>Group</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMI Marine Sales</td>
<td>wholesale distributor and agent for the marine, electronic, offshore &amp; safety products</td>
</tr>
<tr>
<td>Australian Marine Conservation Society</td>
<td>environmental advocacy group focussing on ocean wildlife and the marine environment</td>
</tr>
<tr>
<td>Boating Industry Association of Queensland</td>
<td>peak body representing maritime leisure and light commercial marine industries</td>
</tr>
<tr>
<td>Brisbane City Council</td>
<td>Queensland Local Government Authority</td>
</tr>
<tr>
<td>Department of Local Government &amp; Planning</td>
<td>Queensland Government Agency</td>
</tr>
<tr>
<td>Department of Primary Industries, Queensland Fisheries Service</td>
<td>Queensland Government Agency</td>
</tr>
<tr>
<td>Enviro Treatment Systems</td>
<td>nautical waste solutions and research consultancy including sales</td>
</tr>
<tr>
<td>Environmental Protection Agency, Queensland Parks &amp; Wildlife Service</td>
<td>Queensland Government Agency</td>
</tr>
<tr>
<td>Gold Coast Boat Club</td>
<td>recreational boating club based on South Stradbroke Island</td>
</tr>
<tr>
<td>Gold Coast City Council</td>
<td>Queensland Local Government Authority</td>
</tr>
<tr>
<td>Gold Coast Waterways Advisory Council</td>
<td>group of community representatives formed to give advice direct to the Minister for Transport regarding issues associated with the management of all Gold Coast waterways</td>
</tr>
<tr>
<td>Great Barrier Reef Marine Park Authority</td>
<td>Commonwealth Government Agency</td>
</tr>
<tr>
<td>Interclub Bay Cruise Association</td>
<td>recreational boating organisation formed to facilitate annual interclub bay cruise on Moreton Bay</td>
</tr>
<tr>
<td>Little Ship Club</td>
<td>recreational boating club based on North Stradbroke Island</td>
</tr>
<tr>
<td>Local Government Association of Queensland</td>
<td>peak body representing local government authorities in dealings with other Governments, unions, business and the community</td>
</tr>
<tr>
<td>Group</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Marine Board of Queensland</td>
<td>group of industry experts set up under the under the Transport Operations (Marine Safety) Act 1994 to advise the Minister for Transport and Maritime Safety Queensland on significant issues affecting the marine industry in Queensland</td>
</tr>
<tr>
<td>Moreton Bay Boat Club</td>
<td>recreational boating club based on the Redcliffe peninsula</td>
</tr>
<tr>
<td>Moreton Bay Trailer Boat Club</td>
<td>recreational boating club based at Manly focussing on trailerable vessels</td>
</tr>
<tr>
<td>Noosa Shire Council</td>
<td>Queensland Local Government Authority</td>
</tr>
<tr>
<td>Port of Brisbane Corporation</td>
<td>Queensland Government Statutory Authority</td>
</tr>
<tr>
<td>Ports Corporation of Queensland</td>
<td>Queensland Government Statutory Authority</td>
</tr>
<tr>
<td>Queensland Boating &amp; Fisheries Patrol</td>
<td>Queensland Government Agency</td>
</tr>
<tr>
<td>Queensland Commercial Vessels Association</td>
<td>peak representative body for aquatic charter and tourism industries</td>
</tr>
<tr>
<td>Queensland Health</td>
<td>Queensland Government Agency</td>
</tr>
<tr>
<td>Queensland Marina Association</td>
<td>peak representative body for marina operators</td>
</tr>
<tr>
<td>Queensland Oyster Growers Association</td>
<td>peak representative body for oyster growers</td>
</tr>
<tr>
<td>Queensland Small Craft Council</td>
<td>Peak representative body for recreational boaters</td>
</tr>
<tr>
<td>Royal Queensland Yacht Squadron</td>
<td>Recreational boating club based at Manly focussing on yachts</td>
</tr>
<tr>
<td>Safe Food Queensland</td>
<td>Queensland Government statutory authority</td>
</tr>
<tr>
<td>South East Queensland Regional Organisation of Councils</td>
<td>Umbrella organisation for local government authorities in South East Queensland</td>
</tr>
<tr>
<td>Sunfish Queensland</td>
<td>Peak representative body for recreational anglers</td>
</tr>
<tr>
<td>Wynnum-Manly Yacht Club</td>
<td>Recreational boating club based at Wynnum-Manly</td>
</tr>
</tbody>
</table>
APPENDIX 8

Charting the changes to TOMPA’s sewage provisions

This Appendix provides a description of the legislative amendments to the sewage provisions of the Transport Operations (Marine Pollution) Act 1995. The work of this group is discussed in Chapter 5.

Figure A8.1 illustrates TOMPA’s original sewage provisions as passed by Parliament in 1995.

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**Figure A8.1:** TOMPA’s marine sewage legislative provisions as passed by Parliament, 1995

[my elaboration based on original TOMPA provisions passed in 1995]
Figure A8.2 illustrates the changes to TOMPA’s sewage provisions proposed in the 1998 Position Paper.
Figure A8.3 illustrates the changes to TOMPA’s sewage provisions proposed in the 2000 Position Paper.

Figure A8.3: Proposed position on changes to TOMPA’s sewage provisions, 2000
[my elaboration based on original position outlined in 2000 Position Paper]
Figure A8.4 illustrates the changes to TOMPA’s and TOMPR’s sewage provisions as passed by Parliament through the Transport Legislation Amendment Bills as at 2003.

Figure A8.4: TOMPA & TOMPR’s new marine sewage legislative provisions for recreational vessels, 2003

[my elaboration based on original position outlined in TOMPA sewage provisions passed 2002]
Figure A8.5 illustrates the TOMPA’s and TOMPR’s current sewage provisions as at November 2011.

Figure A8.5: TOMPA’s current marine sewage legislative provisions for recreational vessels (adapted from MSQ 2011:10).
“You? Aren’t you the, er…”
“The poo lady, yes, Commander Vimes. It’s amazing, isn’t it, how people remember?”
“Well, you must admit that it does—how can I put it?—stick in the mind, Miss Felicity Beedle”.
Terry Pratchett, Snuff (2011:164)

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*Great Barrier Reef Marine Park Regulations 1983 (Cwlth)*
International Maritime Conventions Legislation Amendment Bill 2001 (Cwlth)

Maritime Safety Queensland Act 2002 (Qld)

Penalties and Sentences Act 1992 (Qld)

Reprint 10.E – Reprinted as in force on 1 November 2010

Pollution of Waters by Oil Act 1973 (Qld) [repealed 1995]

Pollution of Waters by Oil Amendment Act 1992 (Qld) [repealed 1995]

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  Maritime Legislation Amendment (Prevention of Pollution from Ships) Bill 2003

  Maritime Legislation Amendment (Prevention of Pollution from Ships) Bill 2003,
  Explanatory Memorandum

Regulatory Impact Statement for Regulations for the prevention of pollution by
sewage from ships – Annex IV of the International Convention for the Prevention of
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