THE ENVIRONMENTAL POLICY-MAKING PROCESS IN THE CRUISE SHIP INDUSTRY: A COMPARATIVE CASE STUDY ANALYSIS

by

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ABSTRACT

The challenge of allowing for human use of the earth's resources while protecting them from over-exploitation or depletion is evident at all scales, from the local to the global. The challenge for environmental policy-makers is to account for a globally integrated ecosystem while operating within borders and geographic contexts which are often arbitrarily defined. This is particularly evident in the environmental policy-making process for oceans and ocean uses, which requires policies to be integrated across institutional boundaries. This dissertation serves to strengthen the role of geographical analysis in environmental policy research by increasing the understanding of how local institutions and events affect the environmental policy-making process. Comparative case studies from Australia, Canada and the United States are used to examine how policy communities influence the environmental policy-making process at the local to global level. Specifically, the influence that local institutions and focusing events have on the environmental policy-making process is examined with a focus on the ways in which government, corporate and non-governmental institutions respond to the cruise ship industry and its sewage and graywater emissions. The results of the research undertaken for this dissertation demonstrate that each location's policy community is unique in the make-up of its institutions as well as the local and wider influences it experiences. At the local level, this distinctiveness shapes the policy responses that occur. In order to account for the international nature of the cruise ship corporations involved, elements of scale emerged in the analysis. This dissertation contributes to a stronger understanding of the environmental policy-making process, which is critical to structuring policy responses that provide effective solutions for sustainability.

DEDICATION

I dedicate this dissertation to my Saint, Kate, Tony, and Adele and John and their families. Throughout the stages of my life you have shown me many different ways to not only love and support, but to be loved and supported. I love you.

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ACSI	Alaska Cruise Ship Initiative
ADEC	Alaska Department of Environmental Conservation
AMSA	Australian Maritime and Safety Authority
BMP	Best Management Framework
BOD	Biochemical Oxygen Demand
CHM	Common Heritage of Mankind
CLIA	Cruise Lines International Association
DFO	Department of Fisheries and Oceans Canada
DNV	Det Norske Veritas
EC	Environment Canada
ENGO	Environmental Non-Governmental Organization
HA	Holland America
ICCL	International Council of Cruise Lines
IMO	International Maritime Organization
ISM Code	International Management Code for the Safe Operation of Ships and for Pollution Protection
ISO	International Organization for Standardization
MARPOL	International Convention on the Prevention of Pollution from Ships

MEPC	Marine Environmental Protection Committee
MOU	Memorandum of Understanding
MPA	Marine Protected Areas
MSD	Marine Sanitation Device
NSW	New South Wales
NSW MPA	New South Wales Marine Pollution Act
NPDES	National Pollution Discharge Elimination System
NWCA	North West CruiseShip Association
P&O Cruises	Peninsular and Orient Cruises
PCL	Prince Cruise Lines
PCWMA	Ports Corporatisation and Waterways Management Act
POTEOA	Protections of the Environment Operations Act
RCCL	Royal Caribbean Cruise Lines
SMC	Safety Management Certificate
SMS	Safety Management Systems
SOLAS	Safety of Life at Seas
TBL	Triple Bottom Line
TC	Transport Canada
UNCLOS	United Nations Convention on the Law of the Sea
UNWTO	United Nations World Tourism Organization

USEPA	United States Environmental Protection Agency
WCEL	West Coast Environmental Law
WET	Whole Effluent Toxicity

CHAPTER 1: INTRODUCTION

Environmental policy-making to protect the environment while allowing the economic advantages of ecosystems to be harvested presents many challenges at all scales from the local to the global. In order to regulate human interactions with the environment in an integrated fashion, some form of governance must exist across spatial scales. The challenge for environmental policy-makers is to account for a globally integrated ecosystem while operating within often arbitrarily defined borders and geographic contexts. This is very evident in the environmental policy-making processes for oceans and ocean uses, which must be integrated across institutional boundaries.

Globally, the oceans are important not only as stabilizers of the ecosystem but also as providers of food, energy, pharmaceuticals, and for the transportation that is crucial to the import-export sector. Ocean resources were once considered renewable, abundant and impervious to human effects. However, like all other natural resources, oceans are part of an ecosystem that is affected by pollution and overuse (Roberts, 2003). Although international law has made it possible for countries to delineate limited, and in many cases overlapping, jurisdictional boundaries around ocean spaces, ocean systems are fluid and the imposed boundaries are permeable to both ocean life and pollution. This permeability creates an endlessly changing environment that highlights the interconnectivity of oceans ecosystems and makes effective monitoring and regulation extremely difficult.

Further complicating the environmental policy-making process for ocean uses is the presence of multiple institutions with competing ocean interests. Government, corporate and non-governmental institutions all have varying degrees and types of interests in ocean uses. In order to address any particular issue or policy within a jurisdiction, combinations of local institutions will interact to support or oppose a given policy response. This interaction creates a policy community. Coleman and Skogstad (1990:25) define a policy community as "all the actors or potential actors with a direct or indirect interest in a policy area of function who share a common policy focus and who, with varying degrees of influence, shape the policy outcomes over the long run". Given the environmental and jurisdictional complications of ocean boundaries, the dynamics within a policy community have a profound influence on wider policy decisions.

This dissertation uses the cruise ship industry to examine whether how interactions within the policy community at the local level result in varying institutional responses to environmental regulation at all scales. The cruise ship industry has several defining characteristics that combine to make its environmental policy-making process unique. Cruise ships are mobile and readily move among local jurisdictions and policy communities. The mobility of cruise ships requires the ship's operators to adapt their policies to conform to the laws of the jurisdiction in which they travel. Likewise, governments must adapt or form environmental policies governing cruise ships and their emissions to accommodate local economic, social and environmental priorities. The potential impacts of the cruise ship industry, combined with its growth and human cargo, provide multifaceted environmental policy-making challenges in an already complex system of ocean uses.

Clearly, the mobility of ocean shipping presents policy challenges across various jurisdictional scales. Multiple laws and policies from the international to the local level exist to regulate all ships and the most severe ships' emissions such as oil, deleterious substances, garbage and bilge are regulated. However, due to the nature of their cargo, cruise ships have brought previously unregulated emissions into the policy-making arena. While sewage and graywater have always been regular emissions from ships, they were never internationally regulated; as a result, they were mainly dealt with more at a local level, if at all.

Many events have combined over time and space to initiate or structure the environmental policy-making process for cruise ship sewage and graywater emissions, including the growth of the industry, the high and increasing concentration of people on board, accidental spills, deliberate discharges and increased environmental awareness. In particular, swift or sudden events which cause harm, referred to by Birkland (1998) as focusing events, change the agenda in a policy community. Focusing events elicit policy responses in a given location and contribute to policy-making. The nature, severity and frequency of these focusing events, all of which vary geographically, set the tone for the policy community to evolve uniquely in every jurisdiction and shape the responses of the local institutions in the policy-making process.

1.1 Research Question

The primary research question is: How do locally-based policy communities influence the environmental policy-making process for the cruise ship industry? This dissertation examines the influences of locally-based institutions and events on environmental policy-making processes with a particular focus on the responses of government, corporate and

non-governmental institutions to the cruise ship industry and its sewage and graywater emissions. The goal is to strengthen the role of geographical analysis in environmental policy research by increasing the understanding of how local institutions affect the policy-making process. There are five main objectives in this dissertation:

- to explore the value of comparative case study analysis in geography for policy research;
- to highlight the role of local awareness and focusing events in stimulating or hindering policy responses;
- to contribute to a neutral view of the cruise ship industry and oceans governance;
- to build on the literature that currently exists on the dynamics of local policy communities; and
- to identify the lessons learned from the empirical study with respect to environmental policy-making processes more generally.

An institutional approach is used to answer the research question. While drawing on this foundational concept from economic geography, the research is situated at the interface between economic geography and environmental geography. This methodology recognizes that the shape and structure of the economic environment cannot be fully understood without acknowledging the social institutions on which economic activity depends and through which it is shaped (Martin, 2000). Hodgson (2006) defines an institution as a system of established social rules and laws that structure social interaction. Institutions depend on the thoughts and activities of individuals, but are not reducible to them. Policies are influenced through the interaction of three main types of institutions: the public sector; the private sector; and the non-governmental sector.

The paths that institutions have taken in the past inform their actions and effects on society. As North (1990:118) has stated:

> Institutions... connect the past with the present and the future, so that history is a largely incremental story of institutional evolution in which historical performance of economies can only be understood as a part of a sequential story.

Institutionalism also emphasizes the importance of local characteristics to the economic development of an area or region and reflects the impact of regionally-based social and cultural forces on market-based behaviour. In this view, the formation and nature of conventions, constraints and norms in a region are the results of cultural processes which inform the development of social structures, individual identities and consumption norms and lifestyles (Martin, 2000). Numerous scholars, including Clapp (1998), Hayter and LeHeron (2001) and Markey et al. (2000), have observed that local characteristics and institutions affect policy decisions.

Notably, Martin (2001) has argued that economic geographers should strive to change the world instead of simply analyzing it. He asserts that injustices and inequalities which are intensified by the process of globalization require attention from economic geographers, who have the tools to conduct relevant research and to inform and improve both new and existing policies. He observes that:

> The reality is that policy-making of one kind or another is a prominent and pervasive feature of modern society affecting the daily lives of us all. As geographers, we should be striving to inform and shape the process and improve the outcomes (Martin, 20001:190).

Others have noted the general absence of policy research in economic geography and suggested that institutionalism could be used to bridge the gap (Baldwin et al., 2003; Hudson, 2003; Markusen, 2003; Martin, 2001; Peck, 2003). Despite this, few economic

geographers have undertaken research on policy-making processes. As Baldwin et al. (2003:1) observes:

> Given policy-makers' intense and persistent interest, it strikes us odd that the decade-old renaissance of location theory – what is usually called the 'new' economic geography has been accompanied by so little policy analysis.

Markusen (2003) has remarked on the lack of research on policy-making in regional development, asserting that it exacerbates the distance between theory, research and policy within the discipline of geography. According to Markusen, economic geographers can and should study policy and policy-making both to benefit the discipline itself and to inform other progressive issues, including environmentally sustainable development, human rights and democracy. Hudson (2003) and Peck (2003) are also of the view that economic geography should be used to inform policy-making for social and environmental development. However, since the 1990s, numerous geographers have incorporated the notions of environmentalism into their studies of locational dynamics and corporate behaviour (Castree, 2000; Escobar, 1996; Hayter and LeHeron, 2001; Peet and Watts, 1996; Watts and McCarthy, 1997), but there has been little focus on the environmental policy-making process.

The institutional approach employed by economic geographers provides a methodology to examine the environmental policy-making process with functional elements provided from an environmental geography perspective. Liverman (1999) considers geography's value to environmental analyses to be based on its inherent sensitivity to processes occurring at different scales and its ability to provide contextualized and comparative case studies. Environmental geography can provide a

regional perspective which combines global context with local responses and explores how global environmental change is produced and experienced at the local level (Liverman, 1999).

Focusing on the policy-making process and more specifically on environmental policy-making allows for more emphasis on a location's environment. The incorporation of environmental concerns into policy-making is not new; the importance of the state of the environment relative to other economic and social priorities has been increasing since the 1970s (Dobson, 1995; Luke, 1997; Pezzey, 1992). This dissertation uses the concept of sustainable development, developed in 1987, to represent the balance between social, economic and environmental objectives that is required in the environmental policy-making process.

The fundamental principle of sustainable development, as stated in the 1987 Brundtland Report *Our Common Future*, is "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (39). This has become a widely accepted objective at both local and global levels (Bossel, 1999; Elliott, 1999; Pezzey, 1992). Democratic decision-making tools such as participation, consensus building, advocacy and research and analysis have all been employed towards the purpose of achieving sustainable development objectives. The widespread popularity and acceptance of the three pronged sustainable development framework makes it an important prologue to understanding the environmental policy-making process. Figure 1 shows an environmental policy community in the context of the economic, environmental and social dimensions of sustainable development.

Figure 1: The basics of environmental policy making

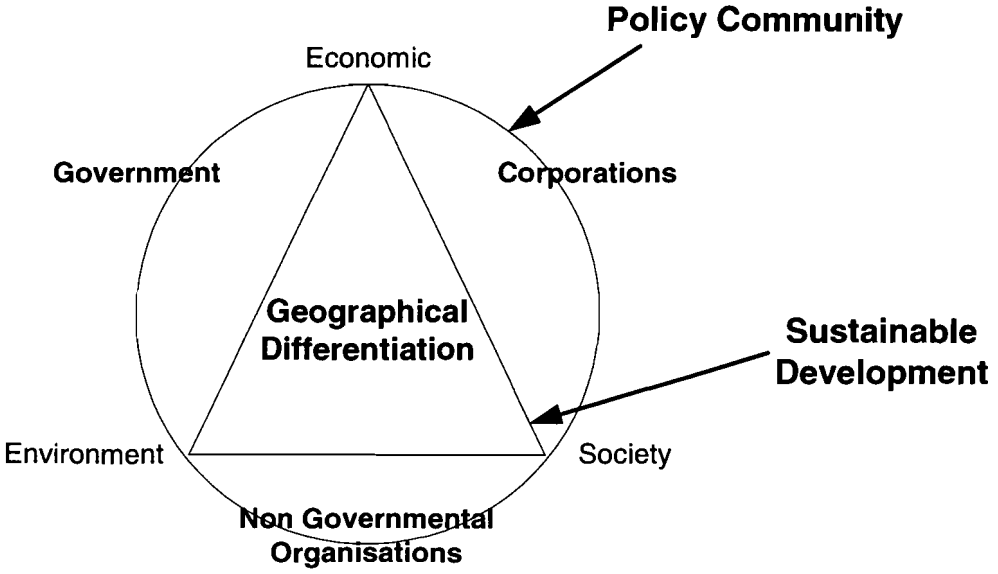


Figure 1 displays the objectives of sustainable development that require balancing by the policy community. This balancing comes in the form of trade-offs or political decisions among economic, environmental and societal objectives. Central to the diagram is the concept of geographical differentiation, which emphasizes that the objectives of sustainable development and the role of institutions vary and evolve according to place depending on the characteristics of place. Government, corporations and Non Governmental Organizations (NGOs) are the main categories of institutions found in a policy community. This dissertation will contribute to the geographic literature by highlighting the importance of local institutions and events in structuring and informing the environmental policy-making process.

1.2 The Comparative Case Study Component

The empirical component of this dissertation consists of a comparative case study analysis of the policy communities associated with environmental policy-making in the

cruise ship industry in Australia, Canada and the United States. Six port locations — Vancouver and Prince Rupert in Canada, Hobart and Sydney in Australia, and Seattle and Juneau in the United States — were chosen for study. Although the six port locations have different demographics, politics, and economic characteristics, all of them receive visits from the same cruise corporations, if not the same ships (Holland America, Royal Caribbean Cruise Lines and Carnival Cruises). This study uses information on the six port locations to analyze the institutions that make up the cruise ship industry's policy communities, their motivations for entering the policy community, their relationships to one another, and the variations in environmental policies and policy mechanisms.

Comparative case study research is a well established method in geographic inquiry and is valuable for the study of complex socio-economic systems (James, 2006; Sayer, 1993). In particular, examining links and underlying mechanisms at the subnational level contributes to a more comprehensive description of complex processes (Snyder, 2001). Synder (2001:94) examines comparative case studies at the subnational level and concludes that research done at this level, whether inter-nation, between-nations or both, "better equips us to handle the spatially uneven nature of major processes of political and economic transformation." The focus on specific locations instead of nations allows for a controlled comparison that increases the likelihood of obtaining valid causal inferences (Snyder, 2001). Furthermore, Sayer (1993) has argued that the intensive, comparative case-study research enabled by field observation is central to understanding the variations between places. James (2006) notes that by examining the relationships, processes and institutions that give rise to the circumstances in multiple locations, it better positions the researcher to identify local specificities for more general

structures, and hence to increase the potential transfer of the lessons learned to other settings.

Comparative case studies were used in this dissertation to demonstrate the importance of geographical differentiation and to inject rigor into the qualitative understanding of each of the locations, particularly by drawing contrasts between them. The comparative case study approach can be telling in well-matched cases, where the circumstantial similarities help highlight the differences both in terms of decisions made as well as decision not made.

1.2.1 Basis for Comparative Analysis

Australia, Canada and the United States are three of the largest maritime jurisdictions in the world; however, the importance of the cruise ship industry varies across these countries, as do the policies governing the industry.

All three countries have been criticized for taking a sectoral management approach to ocean and coastal policy (Juda, 2003). In this approach, management of certain aspects of ocean development and protection have been delegated to multiple government sectors instead of being examined as a whole or handled in an integrated manner. All three countries appear to be part of a trend toward a systems-based approach, which tends to be reactionary in nature. In a comparative study detailing how national approaches to ocean governance have changed in the three countries, Juda (2003) highlights the challenges associated with having many institutions involved in policy implementation. He raises the question, "Does a government system with myriad federal departments and agencies concerned with oceans and coasts have the capability to

generate needed coherent and integrated policies?" (Juda 2003: 168). With its reliance on both coastal and ocean activities, the cruise ship industry faces the dual challenge of responding to multiple institutions and multiple jurisdictions.

The rationale for selecting six sites was to have two locations in each country that dealt primarily with the same cruise companies and cruise ships. These similarities made it possible to focus on geographical attributes and the way these shaped environmental policy-making. Field sites were selected and accessed through consultations with university contacts, attendance at ocean conferences and participation in cruise ship planning sessions. This allowed for the development of a preliminary list of individuals involved in ocean research or cruise ship research. The expertise of the academics, government employees, Environmental Non Governmental Organization (ENGO) members and corporate employees was instrumental in the selection of the sites for this study.

Initial contact with individuals was made primarily via an e-mail describing the study, explaining why they were chosen to inform the study, and detailing ethical considerations and the interview structure. In a small number of circumstances the initial form of contact was a phone call or personal visit. Initial e-mail contacts were followed within a week by a phone call to establish an interview time and place. Table 01 presents population statistics on the six sites chosen for this study and lists the major cruise companies visiting those sites.

Table 01: Population Statistics and Visiting Cruise Companies

SITE	POPULATION (2003)	MAJOR CRUISE COMPANIES	SEASON	ANNUAL NUMBER OF SHIP VISITS
Australia				
Sydney, New South Wales	3,900,000	PCL, HA, RCCL, P&O Cruises, Celebrity	2001-2002	78
Hobart, Tasmania	194,000	PCL, HA, Celebrity, RCCL, Norwegian, P&O Cruises	2002-2003	27
Canada				
Vancouver, British Columbia	1,986, 965	HA, PCL, RCCL, Celebrity, Norwegian, Carnival	2003	305
Prince Rupert, British Columbia	16,924	Norwegian, Celebrity	2003	15
USA				
Seattle, Washington	3,125,833	HA, PCL, Celebrity, Norwegian	2003	110
Juneau, Alaska	30,711	HA, PCL, RCCL, Celebrity, Norwegian, Carnival	2003	547

Sources: Web-based research: The North West CruiseShip Association website nw**cruise**ship.org; Sydney Ports website www.**sydneyports**.com.au, Hobart Ports Corporation website http://www.tasports.com.au/

1.2.2 Secondary Data Collection

The secondary data collection began with a preliminary compilation of regulatory information applicable to the six sites in the study. The compilation of the regulatory information required extensive research, as well as personal communication (e-mails or phone calls) to obtain clarification or further information on current regulations. New

questions were incorporated into the interview process to gather information identified as missing. This information came from national and state/provincial governments, the International Maritime Organization (IMO), the North West CruiseShip Association (NWCA), the International Council of Cruise Lines (ICCL), various international agreements, and publications by ENGOs and media sources. Information was gathered via library searches, web-based searches and interviews. Chapter 4 presents the results of this secondary data collection, an advanced review of the regulations governing wastewater discharges by the cruise industry in Australia, Canada and the United States.

There are significant gaps in the environmental regulations governing the cruise ship industry, particularly with regards to sewage and graywater discharges. Aside from Alaska, which specifies regulations for wastewater from cruise ships in detail, none of the other sites' jurisdictions have laws which are *specific* to the cruise ships industry. This does not mean that no laws apply to cruise ships and their wastewater discharges; rather, many of the regulations that do apply are part of larger, more broadly defined laws. Therefore, a detailed review of applicable regulations was carried out in order to understanding the current policy environment. Secondary data on cruise ships, marine tourism, ocean policy, and international law and wastewater discharges from ships was gathered from academic journals, books, newspapers, government documents and corporate mission statements. The information from these sources helped identify institutions in the policy community of the cruise ship industry, as well as potential interviewees.

1.2.3 Primary Data Collection

A semi-structured interview approach, which allows knowledge to be shared openly by interviewees, was chosen to ensure the inclusion of the multiple perspectives and perceptions of the individual actors in the institutions under study. Such dialogue encourages depth through increased trust and rapport between the interviewer and interviewees (Baxter and Eyles, 1996). This approach encourages interviewees to elaborate on areas of interest, which can introduce new topics or perceptions to the interviewer. Allowing for a discussion on new topics or perceptions provides locally specific information which is valuable to a comparative analysis.

In a semi-structured interview, the interviewer assumes an active role and seeks to understand the viewpoint of the interviewee. Conducting the interviews in person assists in the transfer of information, as the interviewer's observations, for example, of pauses or facial expressions, can lead to the gathering of supplementary knowledge, which may not emerge through a questionnaire or phone interview. Recognizing the potential for supplementary knowledge gives the interviewer an opportunity to probe for additional information. Mason (2002) recommends that the interview follow a loosely structured flow chart of major categories that the interviewer wishes to address, as well as a list of potential interview questions to be asked of all interviewees. This interview structure encourages free-style answers while providing tools to assist but not dictate the flow of the interview. As with inductive analysis, the categories of questions and the questions themselves are expected to evolve throughout the fieldwork as new information presents itself. The flexibility inherent in this approach allows the interviewer to explore

alternative explanations to current realities instead of attempting to fit respondents' answers into pre-existing categories.

Mullings (1999) has recognized that no research is completely objective and that the power dynamics between interviewer and interviewee affect the content of the interview, as well as its interpretation. Using semi-structured interviews does not remove the issues of subjectivity and power from the equation, but it allows the interviewer to minimize their effects. It is important for researchers to be aware of what they bring to the interview and how their relationship with the interviewee could affect the research process and the data collected (Valentine, 1997). The semi-structured interview allows for the analysis of both text and context, contributing to a better understanding of the perceptions of the interviewee.

As a research tool, the semi-structured interview is the best option available for exploring this dissertation's research question, to determine what individuals within institutions know about the cruise ship industry's environmental policy-making process. The semi-structured interviews aid in a comparative case study analysis by highlighting the specific variables and trends produced under different conditions. Individual case studies are used to create a holistic understanding of a location and its processes, and multiple case studies can strengthen the results inferred from the data collected (James, 2006; Peck, 2003; Tellis, 1997).

The use of numerous case studies helps to determine the full array of institutions participating in a given industry; once certain institutions are identified in one location, similar institutions can be sought out in other locations. Furthermore, comparative case studies are useful for multi-perspective and institutional analyses because they require the

researcher to consider the perspectives of individuals and of groups of individuals, as well as and the interactions between them (Baxter and Eyles, 1996; Tellis, 1997).

1.2.3.1 Interview Process

The fieldwork component of this dissertation took place from June 2002 to July 2004 and included 55 formal interviews as well as a series of informal conversations with individuals within various institutions. The interviews involved representatives from federal and state/provincial governments, cruise ship corporations and their supporting industries, and various NGOs and ENGOs. In total 36 government representatives, 10 industry representatives, and 9 NGO/ENGOs were formally interviewed.

The categories of questions in for the interviews varied slightly according to the type of institution the interviewee was associated with. Initially the selection process for interviewees involved choosing an equal number of government, ENGO and industry representation in each location to aid in the comparative analysis. In some cases, however, industry representatives were able to speak knowledgeably about more than one site, thus reducing the number of interviews required in some locations. Similarly, many ENGO representatives could speak regarding circumstances in more than one location. For example, a representative of Oceana (a United States ENGO) was interviewed in Juneau but was also able to provide information on the cruise ship industry in Vancouver and Seattle. By contrast, some sites have particularly large numbers of ENGOs with an interest in the cruise industry, resulting in an increased number of interviews with ENGO representatives those locations. Finally, the number of government bodies interviewed was also partly dependant on how many departments were mandated to deal with cruise

ships or issues related to them. Appendix A lists the institutions whose representatives were interviewed for this study.

Interviews were conducted at each research site with interviewees chosen on the basis of background information compiled on the relevant institutions. Following the initial interviews, snowball sampling was used to identify other institutions with either considerable knowledge of, or some impact on, the environmental policy-making process in the cruise ship industry. Snowball sampling refers to the use of one contact to help recruit another contact that might in turn refer the researcher to another contact (Valentine, 1997). Careful planning was required to ensure that all institutions with direct or indirect roles in policy-making in the cruise ship industry were identified and included in the interview process.

Broad interview questions were prepared in advance and asked in categories, the order of which was determined by the flow of the interview. The interview categories were chosen to elicit information on the following topics:

- relevant institutions in the policy community;
- regulations and policies applicable to the cruise ship industry;
- general views on the impact of discharges on the marine environment;
- specific events that led to policy changes; and
- possible directions for future environmental policies.

The main goal was to determine the role of local institutions in the evolution of the environmental policy-making process for sewage and graywater emission from cruise ships. A secondary goal was to determine the justifications for the ways in which policy

evolved and other local perceptions, realities and focusing events that may have played a part in policy formation.

In order to obtain as much information as possible, the interviewer allowed and encouraged each interviewee to raise as many additional topics of discussion as necessary; and categorized this information according to the main concerns expressed and the reasons for those concerns. For example, an original interview question asked about the effects of all waste emissions. However, as the interviews progressed, sewage and graywater emerged as the most controversial issues in environmental policy-making, and subsequent interviews focused more on institutional responses to those issues.

After all of the information was collected, the data were re-examined with a view to ascertain and analyze the dominant themes. The goal was to shape the information into a more consolidated picture after taking it apart in as many ways as possible. Tesch (1990) has called this process a *de-contextualization and re-contextualization*, or a segmentation of the information.

As interview data were gathered in the field, they were continually categorized and re-categorized into a category matrix and compared to the information gathered from other sites. Throughout this process, certain concepts emerged as central to an understanding of environmental policy-making, while other information was identified as irrelevant to the dissertation's research question. This led to a refining of the interview categories as the interviews progressed to better focus on the core concepts. The interview notes were then re-written to include only the relevant information, and the revised notes were reviewed in the same manner as the original notes. This process

allowed for a more focused understanding of the information gathered, as it ensured that all data examined were relevant to the research question.

1.3 Dissertation Outline

Chapter 1 has stated the dissertation's research question and objectives and described in detail the methodology that was used to answer the question. Chapter 1 outlines the reasons for choosing the research question and the methods undertaken for the empirical study. The basic elements of the environmental policy-making process are provided in Figure 1 (page 8), which highlight the key concepts examined in this dissertation and the structure adopted for the analysis.

Two main bodies of literature inform the background to the empirical work and they are reviewed in Chapter 2. Drawing upon the discipline of environmental geography, the rise of environmentalism in global and local contexts is examined as well as the resulting institutional responses which occur at the local level. Building on this perspective, environmental policy-making is reviewed, and key terms, such as policy community and focusing events, are elaborated upon. This is followed by a discussion on geographical differentiation to highlight the value of a comparative case study analysis and the importance of local institutions in the environmental policy-making process.

To frame the empirical discussion, Chapter 3 focuses on the scale and scope of the cruise ship industry. It presents an overview of institutional perceptions of the effects of the cruise ship industry on the marine environment. The lack of scientific data regarding the environmental effects of wastewater discharges is discussed, as is the impact of this lack of data on debates in the cruise ship industry's policy community.

As regulations vary between local and international regimes, Chapter 4 reviews the regulations governing sewage and graywater discharges in the six sites selected for this study. Regulations at the international, national, regional, provincial/state, and local levels are discussed.

The main findings of the study are presented with respect to two institutional contexts. Chapter 5 examines government and the broader policy community's responses to environmentalism, assessing the role of pressure, perception and local politics in environmental policy-making. This chapter also demonstrates that government policy-makers take into account the principles of sustainable development when deciding on environmental policy responses. Chapter 6 explores corporate responses to environmentalism, discussing the factors that cause corporations to decide whether and how to comply with or surpass a given site's environmental policies. As is the case for governments, the motivation for action includes institutional pressure as well as the need to balance economic, social and environmental priorities. Finally, Chapter 7 concludes by tying the findings together and presenting the main conclusions and contributions of the dissertation to geography, the environmental policy-making process and the cruise ship industry.

CHAPTER 2: ENVIRONMENTAL POLICY-MAKING AND INSTITUTIONAL RESPONSES

Policy-making is an increasingly complex balance of socio-economic and ethical priorities by a variety of institutions (Sabatier, 1998). It is an ongoing iterative process involving questions about how the past has led to the present and what actions are appropriate for shaping the future. Government and corporate policy-makers have traditionally been the key players in most policy communities, and both must respond to urgent and sometimes ambiguous demands while keeping abreast of long-term challenges (Sonnenfeld and Mol, 2002). These policy-makers must simultaneously address broader issues, fulfill their personal mandates, maintain a balanced perspective, and deal with deadlines, criticism and high expectations. Accomplishing these goals requires knowing how other institutions work and interact, as well as accommodating the demands of other increasingly influential institutions such as NGOs. Environmental policy-making has an inherent focus on sustainability and sustainable development causing specific negotiations, balancing and trade-offs between the environment, economy and society.

This chapter clarifies the environmental policy-making process by first defining a key concept in this dissertation: the policy community. Second, the concepts of focusing events and crises are introduced to demonstrate how decisions in the environmental policy-making process can be triggered, either directly or indirectly by specific occurrences. It will be shown that, for varying reasons, governments and corporations

have responded to focusing events and crises in different manners producing different effects on the environmental policy-making process.

Third, the roles and motivations of individuals within governments, corporations and ENGOs in a policy community are examined alongside the rise of environmental policy-making. This highlights the evolution of increased environmental awareness and environmental decision-making within the institutions, emphasizing an ever-changing relationship between the institutions in a policy community which is guided by past decisions and interactions.

Fourth, government, corporate and ENGO decision-making processes are examined with an emphasis on policy mechanisms and government legislation, industry self-regulation and ENGO influence. The literature highlights the importance of the local when determining the effectiveness and appropriateness of a policy mechanism, as a policy solution for one location many not prove successful in another. Lastly, the importance of geographical differentiation is discussed. It will be demonstrated that environmental policies are formed over time through a variety of influences such as increasing awareness, previous decisions, crises or focusing events and interactions between institutions, many of which are place-specific. A diagram of the environmental policy-making process is presented as a tool to examine how local and international influences, including awareness and focusing events, affect a local policy community and initiate a local response.

2.1 Policy Communities

For the purposes of this dissertation, the concept of a policy community serves to identify the institutions and relationships involved in the policy-making process. Wilks and Wright (1987), for example, base their definition of policy communities on institutions and potential institutions that interact and share an interest in a particular industry. Coleman and Perl (1999: 695) define a policy community as "the participants in the governance structure and the degree and patterns of integration among them."

A policy community for a particular industry is not an actual grouping of institutions, but rather an ideological categorization which aids the examination of the policy-making process. According to Börzel (1997:4), groupings of institutions in a policy community are characterized by "predominately informal interactions between public and private institutions with distinctive, but interdependent interests, who strive to solve problems of collective action on a central non-hierarchical level." Unlike an association, a policy community is not a structured or formalized entity that individuals choose to enter. Rather, a policy community consists of all the institutions that influence or have an interest in policy formation for a particular issue or industry in a particular location (Börzel, 1997; Coleman and Perl, 1999; Lindquist, 2001). The inclusion of an institution in a policy community results from its awareness of the particular activity or industry under examination and subsequent efforts to influence policy responses.

A policy community can exist at any scale from the local to the global. It is generally formed around a policy problem that involves political, economic or technical complexities and interdependencies which affect the regulatory environment (Kenis and Schneider, 1991). The regulatory framework is a series of rules and regulations from the

local to the international level. Such regulation may be direct or indirect, and may be formal or informal. For example, certain industries may be subject to direct legislation regulating specific operations and activities, while other industries are subject to indirect legislation wherein certain activities and operations in a geographical area are legislated while others are not. For example, some locations will have laws pertaining to the cruise ship industry while others may regulate shipping more generally. Formal Memoranda of Understanding (MOU) and government-established guidelines often delineate expected or appropriate behaviour without being law. Less formal industry codes of conduct and voluntary self-regulating mechanisms function similarly.

All of the institutions that form a policy community are interrelated. For a particular industry, such as the cruise ship industry, the current regulatory framework sets the parameters within which institutions are active in the policy community, regardless of whether the mandates of those institutions support, reject or are indifferent to that framework. The position of one institution relative to others in the policy community depends on the compatibility of that institution's mandate with other mandates. According to Sabatier (1998), an institution's mandate reflects a core belief system which mirrors a fundamental ideology about the world. Similarly, an individual's ideology forms the basis of his or her stance on a particular issue and affects the decision-making within his or her institution.

The policy-making process involves a wide range of institutions across time and space whose actors can work together or in opposition to achieve a desired policy. Specific individuals or teams of individuals within the various institutions involve themselves in the policy-making process through calculated decisions and actions, which

are performed on behalf of their respective institutions. These decisions and actions form the policy responses of institutions and should be attributed to those institutions rather than specific individuals. As a result, when procedures exist for members of an institution to express a common or majority decision, institutions can be regarded as individual actors and their interrelationships with other institutions can be seen as one-on-one encounters (Hodgson, 2006). Figure 1 (page 8) displays how a policy community which is composed of governments, corporations and NGOs, is structured around the three prongs of sustainable development, providing a basis for the inclusion of environmental issues in the policy-making process.

2.2 Focusing Events and Policy Communities

The environmental policy-making process is usually affected in a constant and consistent manner by the principles of sustainable development and many other factors, including the dynamics of the policy community and other place-specific characteristics. Policy decisions are generally a reflection of all of those factors and the ways in which they intertwine with one another. Focusing events, sometimes in the form of a crisis or series of crises, may heighten activity in a policy community and trigger both institutional responses and change (Birkland, 1997, Hayter, 2004).

In general, focusing events are sudden or unusual events that are made known to all institutions simultaneously and threaten immediate or future harm in a geographically concentrated area (Birkland, 1998). Focusing events can introduce people within institutions to an issue, highlight policy gaps and provide a platform for disseminating information about the issue at hand. Focusing events may also lead to conversations between geographically distant groups or end deadlocks in the policy-making process.

Most institutional structures resist dramatic change and settle for more conservative solutions rather than an overhaul of the existing system. Martin (2000) has observed that the relationships between institutions in a hierarchy *can* change over time given institutional awareness to a particular activity or industry, but a focusing event or crisis has the ability to accelerate the process. This highlights the phenomenon of "periodic transformations," in which institutional structures remain relatively unaltered for a long period of time until a major crisis or focusing event causes extensive changes to be made. According to Martin (2000), most institutional adaptations are abrupt responses to economic or political pressures for change, and cause upheavals and major transformations. Although consensual approaches to institutional adaptation have occurred, the majority of change stems from a crisis, controversy or conflict between power groups (Hayter, 2004; Martin, 2000).

Birkland and Nath (2001) and McConnell (2003) have emphasized the importance of distinguishing between perception and reality when defining what a focusing event entails. According to these researchers, determining whether or not a focusing event has occurred can be a matter of judgment, not simply of fact. The definition of an occurrence such as a focusing event is dependant on peoples' perceptions of the scale and importance of the problem to their institution, the degree to which they feel affected and the extent to which the situation provides them with an opportunity. As Birkland and Nath (2001: 279) observe:

> Indeed, the perception that a problem exists may be more important than the factual basis of the problem itself, provided that forces exist to persuade people or groups of the superiority of one interpretation over another.

Crises, or focusing events, can cause direct activity within institutions and throughout policy communities. By bringing a given issue to the fore, a focusing event compels individuals within institutions to evaluate their beliefs about a certain activity or procedure. Decisions are made by the media on how to report a focusing event which also plays a crucial role in peoples' perception of that event. Individuals in the various institutions must absorb all the information provided to them and then decide how to respond. As Birkland (1998:1) noted:

> Because these events – particularly when they seem to be caused by human negligence – upset our sense of natural and social order, surprises can reveal new public problems to interest groups, government leaders, news media, and the public, or can return existing but dormant problems to the agenda.

Many examples from the ocean sector demonstrate the importance of an event or crisis in spearheading environmental policy change. The devastating effects of the Torrey Canyon disaster (1967) made the IMO realize that the transportation of oil by tankers posed an imminent threat to the health of the oceans. The IMO responded by assuming a level of responsibility for the ocean environment and introduced a series of measures to prevent tanker accidents and minimize their consequences. Increasing concern about pollution from ships at sea resulted in the 1973 International Convention on the Prevention of Pollution from ship (MARPOL) which covers accidental and deliberate discharges and dumping from ships.

An examination of how international and local environmental awareness, focusing events, and institutional responses shape local policy communities provides insights into what stimulates and affects certain types of local government and corporate policy

responses. Environmental policy-making involves similar challenges, with an added focus on conservation.

2.3 The Rise of Environmentalism

Awareness of the environment and its importance to society increased throughout the 20th Century and is visible in early references to conservationism and protectionism (Dunlap, 1990). Although the notion of environmentalism was conceived of long before, it did not have a major effect on the functioning of government and corporations until after the WWII and into the 1960s. Rachel Carson's publication *Silent Spring* (1962) is often cited as the first milestone in the development of a stronger role for environmentalism in government and corporate decision-making (Lutts, 1985; Hayward et al., 2000; Mitchell et al., 1990). Carson's book developed the notion that chemicals and pollution in our environment can affect human health and the health of the planet. The increased public awareness created in the 1960s led to the establishment of the first Earth Day in 1970 and prepared society for the Club of Rome publication, *Limits to Growth* (1972). The *Limits to Growth* report highlights the limitations of our global systems to support pollution and overuse, and suggests that, without a major alternation in global production and consumption patterns, the world will no longer be able to sustain life (Meadows, 1972). The concept of sustainable development was introduced 1987 and quickly became the standard by which environmental decisions were based and evaluated.

Reviewing the rise of environmentalism highlights the interactions of institutions in policy communities facing environmental challenges. Governments and corporations took turns incorporating awareness and sustainability into their decision-making and eventually their policies. A review also highlights a parallel rise in the importance of

supranational organizations, NGOs and ENGOs, which provided counterbalancing logic to the traditional government and corporate ways of viewing environmentalism and eventually sustainability. Supranational organizations, such as the United Nations and the International Maritime Organization (IMO), tend to be international in nature and involve the participation of multiple nations. The prominence of these institutions into the environmental policy-making arena on all scales from the international level to the local level significantly altered the dynamics of policy communities.

2.3.1 The Evolution of Government and Corporate Decision-Making

Prior to 1960, government and corporate leaders overwhelmingly viewed the environment and natural resources as a public good from which no one was excluded and for which no one was willing to pay (Steger, 1993; Walley and Whitehead, 1996). Historically, economic policies have been the main focus of interactions between government and corporations. However, a growing awareness of the importance of the environment in the 1960s and 1970s pressured governments to pass and enforce acts and legislation designed to protect the environment (Hayward et al., 2000).

In the 1970s and 1980s, governments imposed more and stricter environmental restrictions on corporations, and began to regard all aspects of corporate production and consumption as appropriate for regulation or legislation. Some corporations were overwhelmed by these changes, continually scrambling to comply with new environmental legislation by reducing their use of hazardous materials and cleaning up existing emissions (Steger, 1993). The regulatory standards were, more often than not, met by simple compliance measures such as end-of-pipe technologies, since other technical options could not be implemented within the time available (Walley and

Whitehead, 1996). End-of-pipe technologies are technologies designed to treat the by-product wastes produced from industrial activity such as water, air and solids and were often used to meet environmental regulations instead of developing new technologies or processes to produce less waste. Fischer and Schot (1993) refer to this phase of corporate behaviour as 'resistant adaptation,' where corporations refused to incorporate environmental issues into their business strategies. Steger (1993:127) observes: "(i)t is rational for a company under these circumstances just to comply with the law and try to minimize the cost imposed by environmental regulation."

After several years of complying with environmental regulations, corporate executives realized that the process of constantly reformulating temporary solutions, as well as paying pollution taxes, fines and penalties was imposing high costs on their corporations without providing any real long-term benefits (Berry and Rondinelli, 1998; Dechant and Altman, 1998; Steger, 1993). In the 1980s, some corporations responded to this situation by relocating their factories and assembly plants to areas with lower or non-existent environmental standards. This relocation was facilitated by improvements in transportation and communications and allowed companies to reduce their costs.

Many other corporations, by contrast, chose to remain in their original locations for reasons such as a lack of financial resources and an adversity to the high risks associated with foreign locations. However, those companies had to address the increasing costs of environmental compliance in their original locations. Over time, new technologies reduced the cost advantage of using standard technology, with the result that integrated techniques that avoided or prevented pollution during the production process

became profitable and led innovative management to consider alternative approaches (Walley and Whitehead, 1996; Welford, 1996).

Dechant and Altman (1998: 522) have observed that "the experiences of these firms carry a clear and urgent message – companies that continue to approach environmental problems with band-aid solutions and quick fixes will ultimately find themselves at a competitive disadvantage." Consideration of the environmental impact has, in their view, become an essential part of doing business, rather than a side process.

At the same time the role of government in environmental regulation was shifting away from strict legislation to regulation based on fairness to competitors and to consumers (Hayward et al., 2000). Hayward et al. (2000) have noted in American society, that over time government regulation for the environment became more ambitious in the requested standards and was more than social in nature. Throughout the 1980s, new federal departments and agencies were created with highly specific, and often narrow, environmental mandates. Jordan et al. (2005) note that the shift in government style was combined with a rise in new policy instruments including benchmarking, co-regulation and voluntary codes of conduct which relied less on strict legislation and worked more to encourage innovation.

Whittaker (1999) approaches environmentalism from the profit-first mentality and argues that the confluence of corporate environmental, economic and social engagement resulted in a new paradigm, which he refers to as the *triple bottom line* (TBL). The TBL was first coined by John Elkington and his team from the UK group SustainAbility Ltd., and incorporates the values of sustainable development into the economic system (Whittaker, 1999). Whittaker (1999) does not claim that this will be an easy transition

nor that it will be spurred by new ecological thinking; rather, he views the transition as inevitable for future global prosperity. Whittaker argues that globalization has progressed alongside the move towards environmentalism, signifying a reduction in government influence over resources and the declining legitimacy of governments as direct economic institutions. In light of these trends, Whittaker sees the burden of social investment as falling on industry. He writes "(a)t the core of the sustainability agenda is the issue of how to harness the resources of the private sector to these new social and environmental imperatives without compromising — and ideally enhancing – economic profitability and value creation" (Whittaker, 1999: 24).

Some industries have embraced environmentalism as offering the potential for competitive advantages in aspects of business such as marketing. Green marketing, in which a company advertises the environmentally beneficial characteristics of a product of service to increase sales, became an increasing trend in business (Starik and Rands, 1995). In surveys throughout the 1990s, a growing number of consumers said they either reward or intend to reward firms that address environmental concerns in their business and marketing practices (Menon, and Menon, 1997). Companies such as the Body Shop, Ben and Jerry's, Wal-Mart and PG&E aggressively targeted environmentally concerned consumers, knowing that some people will pay a premium for products and services perceived as environmentally benign (Gladwin et al., 1995).

Reichert (2000) has shown that corporate actors can be induced to exceed environmental standards because of their reluctance to receive a negative environmental reputation. In his study of corporate indictments, Reichert found that the impact of fines on shareholder wealth was several times the total value of the potential fines involved.

This suggests that financial markets reflect unethical corporate behaviour. Reichert further found that only a portion of the original loss in shareholder wealth was restored in cases when the accusations were proven false. Therefore, corporate policy needs to be seen as moving beyond compliance with the letter of the law and focusing on acquiring a reputation that keeps the organization above suspicion. When corporate policies are more stringent than government regulation, it is often the result of a tendency for corporate actors to implement industry guidelines that are self-monitored in order to maintain a strong public image (Reichert, 2000).

Corporate environmental policies and industry self-regulation do not go unchallenged, as many see corporate environmentalism as a public relations exercise that feigns ethical concern in an increasingly capitalist world (Beder, 1997). As the growth in the number of corporate environmental mandates demonstrates, many corporations have acknowledged environmental issues, and have started to deal more proactively with environmental legislation. However, the effectiveness of those mandates is unclear, since an environmental mandate neither ensures corporations have altered their behaviour nor that any alteration they may have made is an improvement. Corporate accountability and transparency are widely questioned by ENGOs and academics while governments are continually lobbied to increase environmental monitoring and enforcement (Beder, 1997).

The roles of governments and corporations in environmental policy-making have evolved as both were required to address environmental concerns and implement environmental policies, but the inclusion of the environment into policy communities did not ensure the protection of resources. The responses of governments and corporations

were motivated by different ideologies, calling into question both the desired goals and the actual impacts on the environment. As environmental awareness increased, the impacts of environmental pollution, the potential for corporate dishonesty, and the lack of government monitoring caught the attention of concerned citizens at both local and global levels, generating an audience with a strong understanding of the dynamics of policy communities. This audience mobilized to increase the presence and influence of environmental supranational organizations and ENGOs to counterbalance what was viewed as simply economic motivations of some governments and corporations.

2.3.2 The Rising Influence of Supranational Organizations and ENGOs

Governments and corporations have traditionally been viewed as the central institutions in a policy community (Coleman and Perl, 1999; Lipschutz, 2000). Yet, while both governments and corporations play important roles in the environmental policy-making process, other institutions at the international and the non-governmental levels, such as supranational organizations and ENGOs, have become increasingly active (Dunlap, 1990; Mitchell, 1990; Raustiala, 1997; Soyez, 2000).

According to McFarland (1998), countervailing power groups have established a strong presence for themselves in policy-making since the 1960s. Lipschutz (2000) argues that the increased importance attached to horizontal decision-making, integrated management and coordinated decision-making under globalization has increased both international and local policy interest. The increasingly international nature of the environmental policy-making process causes a wider diversity of institutions to become engaged in a given policy problem or concern.

Supranational organizations and ENGOs now play a key role in influencing and informing government and corporate environmental policy decisions. Due to an increase in global awareness of environmentalism, supranational organizations are using international conventions and laws to demand better environmental performance by corporations (Pagnucco and Chatfield, 1997; Soyez, 2000). In the cruise ship industry, for instance, the *International Convention for the Prevention of Pollution from Ships 1973* (MARPOL), *Safety of Life at Sea 1974* (SOLAS), classification societies and the *United Nations Convention on the Law of the Sea* (UNCLOS) have all made new demands for environmental improvements either through the addition of new Annexes or regulations. On the other end of the spectrum, local ENGOs have been influencing change in policy communities at varying scales. Whether their leadership is attracted to an environmental cause through a focusing event or purely for sustainability reasons, ENGOs have the ability to bring an issue to the forefront of public debate. This ability makes local ENGOs a key institution in the examination of local policy communities and the environmental policy-making process.

Arguably a response to the prominence of global politics, ENGOs have experienced substantial growth both internationally and within nation states (Pagnucco and Chatfield, 1997). ENGO movements represent efforts by clusters of individuals with similar interests and values to promote some form of social or political change (Pagnucco and Chatfield, 1997). ENGO intervention in political processes alters decision-makers' perceptions of problems and of the costs and benefits associated with different policy choices (Pagnucco and Chatfield, 1997). Mowforth and Munk (1998) have described ENGOs as "new social movements" that lie at the heart of global politics and have, to

varying degrees, been able to transform the political scene by influencing government policies.

2.4 Government, Corporate and ENGO Decision-Making Processes

The rise of environmentalism ushered in many policy mechanisms to account for environmental externalities and achieve either sustainable development or the appearance thereof. Much debate ensued over what types of policy mechanisms could result in effective sustainable development, and whether governments, corporations and ENGOs were appropriately accountable and transparent institutions. From strict government environmental legislation to corporate environmentalism to combinations of both, the environmental policy-making process became a vehicle to structure socio-economic development while appeasing interacting institutions and their environmental interests.

Researchers have debated whether policy mechanisms can invoke environmentally responsible behaviour while also stimulating innovation (Furger, 1997; Gunningham and Rees, 1997; Sinclair, 1997). Some have asserted that strong command and control regulations are needed to limit corporations' behaviour (Klein, 2002; Schmidt, 2000). Others have insisted that regulation stifles innovation and advocated less regulation and more industry self-regulation (Gunningham and Rees, 1997; Rondinelli and Berry, 2000).

Command and control is the dominant form of environmental regulation in most countries and, until recently, has been the most common government response to environmental pollution (Sinclair, 1997). From a management perspective, command and control regulations are based on prescribing rules and standards to an industry and

using sanctions to enforce compliance. However, many regulators, industry and communities argue that command and control has been too great a burden and too expensive. Benefits from command and control regulations have been diminishing, compliance is increasingly difficult to measure, and the cost of enforcement is rising (Furger, 1997; Steger, 1993). In addition, there are concerns about the motivations of government in instituting command and control regulations for a particular sector or industry in a given location.

2.4.1 Government Decision-Making Processes and Selective Responses

Government policy decisions are rarely simple and usually depend on a dialogue about the 'right' solution for a problem in a given time and location. The 'right' solution need not be the most logical or appropriate solution; often it is based on what is right for a politician or industry at the given time and place (Lodge, 2003). Lodge (2003) sheds light on the difficulty of theorizing about government policy-making by pointing out that policy learning does not constitute rational decision-making. He notes that "policies are not necessarily attractive for performance reasons, but for their ideational content as policy instruments incorporate implicit theories about how to achieve their objectives" (Lodge, 2003:161).

For Lodge (2003), policy-making is based less on the logic of appropriateness, and more the logic of intention, limited time horizons, unintended consequences and incentive structures. It is also common for government to attempt a series of partial responses to address a problem before committing to wholesale policy change in the form of command and control regulation (Howlett and Rayner, 2006; Lodge, 2003). These partial responses are designed to examine other alternatives to policy change, and where

possible, make optimal use of the scenario to advance the government's desired agenda. In other words, individuals at varying levels of government can choose to respond to the magnitude and potential harm of an event, or the awareness of an event, through selective responses or adaptations (Lodge and Hood, 2002). Lodge and Hood (2002) have used the term 'selective responses' to refer to how government decision-makers can use or distort the characteristics of a situation to pursue a desired agenda. These researchers have identified three distinct types of responses used by individuals in government to inform policy-making before implementing wholesale changes.

A window-of-opportunity response allows a government to advance new or desired policies in its own interests. In this scenario, the governmental institutions in a policy community downplay or exaggerate the severity of a situation to advance their own agendas (McConnell, 2003). Increasing environmental awareness or events, such as media pressure, protest or social outcry, can stimulate a public response that allows for or demands policy change. Governments can also use a window-of-opportunity response to react to an event in one industry in order to downplay harmful activity in another industry.

System-maintenance responses attempt to deal with a situation the public views as problematic while maintaining as much of the current political system and policies as possible. Policy change usually occurs after a period of failed system-maintenance responses (Lodge and Hood, 2002). In system-maintenance scenarios, the government may choose to respond by commissioning studies or striking a task force to re-examine the issue or industry in question. This kind of response acknowledges a problem without deviating from business-as-usual politics.

An institutional-re-engineering response is similar to a system-maintenance response but involves more visible changes to the existing system. In essence, it attempts to filter out any complex institutional change and focuses on more convenient or less demanding policy options. The government may introduce industry-specific guidelines or codes of conduct that reflect existing laws but focus mainly on the activity, industry or corporation that caused the crisis. At times, policy makers using this type of response ignore some elements of a situation by creating or reinforcing biases, making the most convenient policy option the most appealing (Lodge and Hood, 2002). One drawback to the institutional re-engineering response is that governments tend to resist the implementation of command and control regulation unless they are place under considerable pressure to do so. This weakness has led to a search for regulatory alternatives to improve corporate environmental performance, and a growing interest in corporate environmentalism as a possible solution (Sinclair, 1997; Gunningham and Rees, 1997).

2.4.2 Corporate Decision-Making Processes and Corporate Environmentalism

In environmental policy-making process, there has been an increasingly strong tendency to let corporations respond to market mechanisms and self-regulate (Furger, 1997; Gunningham and Rees, 1997). Industry self-regulation is a type of market-based incentive that relies on economic and social motivations to encourage both environmentally sound behaviour and cost effectiveness. Gunningham and Rees (1997: 364) define industry self-regulation as "a regulatory process whereby an industry level (as opposed to a governmental or firm-level) organization sets rules and standards (codes of practice) relating to the conduct of firms in the industry." The goal of industry self-

regulation for environmental purposes is to reduce the number and severity of damaging processes caused by the industry for the good of the public and the environment. 'Pure' industry self-regulation consists of regulation and enforcement that is independent of direct government involvement.

The rise of corporate environmentalism can be viewed as the corporate response to a rethinking of the economic system and its inherent reliance on the earth (Freeman and Soete, 1997; Sonnenfeld and Mol, 2002). Escobar (1996) argues that seeking short-term gain at the expense of long-term protection is no longer possible at a time when the fears of future degradation have become immediate realities, especially for companies requiring dwindling natural resources for their operations. In light of this, Escobar believes corporations have had no choice but to re-evaluate their interaction with the environment to survive in today's environmentally aware world, although, there are many different ideologies driving corporate environmentalism and its resulting policy options. It can be motivated by varying degrees of concern for the environment, and, like governments, corporate environmental policy-making requires a dialogue on the 'right' solution for a particular activity, place and awareness of the policy community.

All corporations are based on relationships with individuals and institutions which can affect or be affected by the company and its operating practices (Waddock, 2002). Simply put, stakeholders significantly affect profits and determine the survival of a corporation. As a result, the right combination of pressures can influence corporations to modify their mandates in order to take political and social issues into account. Profits may be crucial to sustaining a business, but should be understood as the by-products of the many relationships on which a corporation depends for its legitimacy, power,

resources and capital investments (Waddock 2002). This view recognizes the influence of stakeholders, including investors and local communities, in the functioning of corporations.

The move towards 'true' corporate environmentalism has been regarded by some as a sign that the environment has finally permeated the corporate mindset. Rondinelli and Berry (2000) advanced the notion of a sustainability paradigm in which a company behaves ethically towards the society in which it is based. They define corporate citizenship as "practices that meet a company's responsibilities to its stakeholders, including employees, shareholders, customers and suppliers as well as to the communities in which it is located" (2000: 73). Including communities in this definition emphasizes the importance of collaboration with local stakeholders, rather than a commitment to global sustainable development, thus enabling corporations to tailor their mandates to local issues.

Rondinelli and Berry (2000) have also found that many multi-national organizations see proactive environmental management as a pragmatic way to lower costs, reduce risks and liabilities, and make operations more efficient. The make-up of many corporations in the 1970s and 1980s prevented them from pursuing longer term returns, including developing stronger competitive advantages, preserving crucial resources and raw materials, improving their image and being innovative. Over the past 20 years, however, many companies have started to overhaul their corporate make-up from top to bottom to better exploit the advantages of environmentalism (Rondinelli and Berry, 2000).

According to Rondinelli and Berry (2000), many corporations are creating voluntary environmental programs that directly address public concerns about the potential environmental impacts of their facilities and operations. Such programs also actively involve stakeholders to improve local economic, environmental and social conditions through co-operation and partnership. Rondinelli and Berry (2000) suggest that companies were persuaded to become more environmentally aware by a change in individuals' value systems. The current corporate environmentalism approach owes much to a general shift in priorities within all industrialized and democratic countries, and signifies a long-term change in business practices (Steger, 1993).

The Business for Social Responsibility, a not-for-profit organization that provides socially responsible business solutions to corporations internationally, has pointed out that public demands for the enforcement of regulations and increased disclosure by investors, regulators and public interest groups have also played a strong role in increasing corporations' sensitivity to their social responsibilities (Business for Social Responsibility, 1998). As Berry and Rondinelli have noted:

> Public and shareholder expectations of corporations to deal with complex social and economic issues in the communities where they operate have also risen dramatically over the past decade and at the same time that the roles of national and local governments have been shrinking (1998: 40).

The success of the business sustainability paradigm depends on enterprises taking on environmental responsibilities proactively in order to foster sustainability (Jennings and Zanderbergen, 1995). Advocates of the sustainability paradigm would thus argue that sustainability is within the mandates and capabilities of corporations.

Many authors, however, question the importance of this shift towards sustainability, as well as its influence on corporate strategy (Banerjee, 2001; Crane, 2000; Gladwin et al., 1995). While numerous studies have found that individuals are willing to pay for environmentally 'friendly' products, consumers have not been very willing to buy those goods and services at higher prices than the conventional equivalents. This suggests that consumers' commitment to environmental performance may be superficial (Steger, 1993). Furthermore, there is often good reason to question the environmentally 'friendly' image many corporation attempt to convey. By using marketing and other forms of public relations strategies, corporations work to shape their own public image as well as consumer desires (Beder, 1997). This is not to suggest that all corporate environmentalism strategies are public relations exercises. Corporate policy-makers are primarily interested in promoting business, with environmental protection as a by-product. Of course, companies still market and promote their green behaviour, but "experience shows... that environmental soundness- except in narrow market segments- is not a substitute for basic product performance and quality, but only an additional benefit" (Steger 1993: 149).

The notion of companies' new sensitivity to their social responsibilities becomes essential when differentiating between corporate responsibility and corporate environmentalism. Minimizing costs and generating profit are inherent in both concepts, but the motivations for pursuing these goals differ, thus calling into question whether social issues can be effectively incorporated into businesses' mandates.

In his study of managerial perceptions of corporate environmentalism, Banerjee (2001) determined that the pervasiveness of its rationale is directly related to the

company's economic bottom line. He found that corporations evaluated environmental initiatives on the basis of their benefits to the firm, which, in most cases, meant a reduction in waste, cost saving and improvements in product and process quality (Banerjee, 2001). Thus, Banerjee concluded that corporations did not fundamentally shift to more sustainable or ecocentric ideologies, as Rondinelli and Barry have suggested. Instead, he argued, it is reasonable to assume that the survival of a company remained of paramount importance to its owners, and most companies' environmental efforts focus on strengthening corporate resources and capabilities to meet the requirements of a changing business climate and to gain a competitive edge.

In fact, a common criticism of industry self-regulation is that industry members portray themselves as environmentally responsible while continuing to pollute and act in their own self-interest (Beder, 1997; Gunningham and Rees, 1997). Increased and unbiased monitoring and enforcement would help ensure industry credibility; however, questions of who should be responsible for monitoring and enforcement and what it should cost the public remain unanswered.

In the cruise ship industry, for example, there is a tendency for corporations to enter into associations that govern their behaviour. The literature on industry associations has suggested that voluntary agreements can create problems among members, such as encouraging free-riders and reducing incentives for innovation, especially if the agreement calls for transparency with regard to abatement costs (Bizer, 1999). As Bizer (1999: 164) explains:

> Incentives to act as a free-rider are strong, and a firm acts against its own interests if it heavily invests in research and development or reduction technologies and reveals all relevant information on individual abatement costs.

The opposite seems to occur, however, in the closely knit cruise ship industry, where there is a lot of pressure among cruise ship companies to behave in an environmentally responsible manner. Cruise ship member alliances have become an important institution in the cruise ship industry, pressing for environmental protection through industry codes of conduct. Since a newspaper headline is more likely to read "Cruise Ship Dumps Sewage in Harbour" than to name the individual ship or company involved, there is a strong incentive toward corporate affiliation in the cruise ship industry to prevent bad press (pers. comm., Princess Cruise Lines, June 18, 2003).

2.4.3 ENGO Decision-Making Processes and a Spectrum of Extremes of ENGOs

The introduction or alteration of environmental policies requires both considerable pressure and a concerted effort by interest groups involved in the environmental policy-making process. Supranational organizations and local ENGOs have been able to provide that pressure on governments and corporations to effect change (Mitchell et al., 1990). Supranational organizations have been successful in applying pressure due to their international standing. They have the ability to expose environmental issues and their effects in a certain location to an international audience, while simultaneously shaming governments and corporations into examining solutions. Local ENGOs are much smaller in scale but have the tools available to influence change on a large scale.

Hayter, Barnes and Bradshaw (2003) have acknowledged the rising influence of ENGOs in resource peripheries and their industries. According to these authors, the

introduction of new technologies such as the internet and e-mail have allowed ENGOs to become extremely mobile and subsequently more effective in swaying public opinion and pressuring governments to regulate industries and corporations. For example, the internet has made it possible to organize a protest overnight with only a few mouse clicks. In addition, ENGOs can apply more pressure on governments and corporations by providing images of environmental degradation to a larger audience to increase public support for a given environmental issue. ENGOs have used the media effectively on certain campaigns and have, through public pressure as well as consumer demands, influenced the environmental policy-making processes of both corporations and governments.

When examining the decision-making processes of ENGOs, is it important to recognize that no two are identical and that each has its own decision-making processes. The term ENGOs encapsulates all environmental non-governmental organizations without distinguishing between various types. ENGOs exist on a spectrum of extremes, and include organizations using highly adversarial tactics to organizations which see themselves in an advocacy-type collaborative role (Mitchell et al., 1990). Mitchell et al. (1990) explain that ENGOs that use highly adversarial tactics tend to believe that the system is tremendously unbalanced in the favour of corporations and governments. These organizations justify their adversarial tactics internally as a means of balancing the playing field. ENGOs on the other end of the spectrum, tend to work within the system instead of against it, and will partner with corporations and government to achieve similar objectives (Mitchell et al., 1990).

Most ENGOs balance their adversarial nature with some advocacy work, and operate somewhere in between the two extremes. Many ENGOs have successfully

challenged the ability of either industry or government to regulate industry and have turned to certification programs or pushed for third-party monitoring (Klein, 2002). The International Organization for Standardization (ISO) 14000 series is the most notable of these certification programs and has incorporated environmental management systems into a wide variety of corporations and organizations, including the cruise ship industry. These standards simultaneously pressure corporations to demonstrate environmental compliance and provide a marketing strategy that corporations can use to gain comparative advantage over their competitors (Prakash, 2000).

Knowing the mandates and ideological beliefs of particular ENGOs is important in understanding how they interact with other institutions and their influence on the environmental policy-making process. The roles of ENGOs in a policy community and the environmental policy-making process are as unique as the organizations themselves, thus requiring analysis at the local level.

2.5 The Importance of Geographical Differentiation in the Environmental Policy-Making Process

This dissertation will examine geographical differentiation to highlight how an analysis of the local, in looking at environmental policy-making processes, reveals the influence of various place-specific events and institutions. These place-specific characteristics affect the motivations and decision-making of the local institutions, how they interact, and how they are influenced by wider factors. The evolution of local awareness and of environmental policy responses is unique in every location, and the distinctive features of those evolutions shapes how local institutions interpret local and wider influences. In some locations, wider influences have the ability to shape local policy-making more

profoundly than in others, but the local response is still fashioned in combination with existing factors at the local level.

A focus on location provides a cross-cutting way of looking at processes that other disciplines may treat in isolation. From comments made at an April 2004 workshop on the role of geography in public policy, James et al. (2004:1902) concludes that:

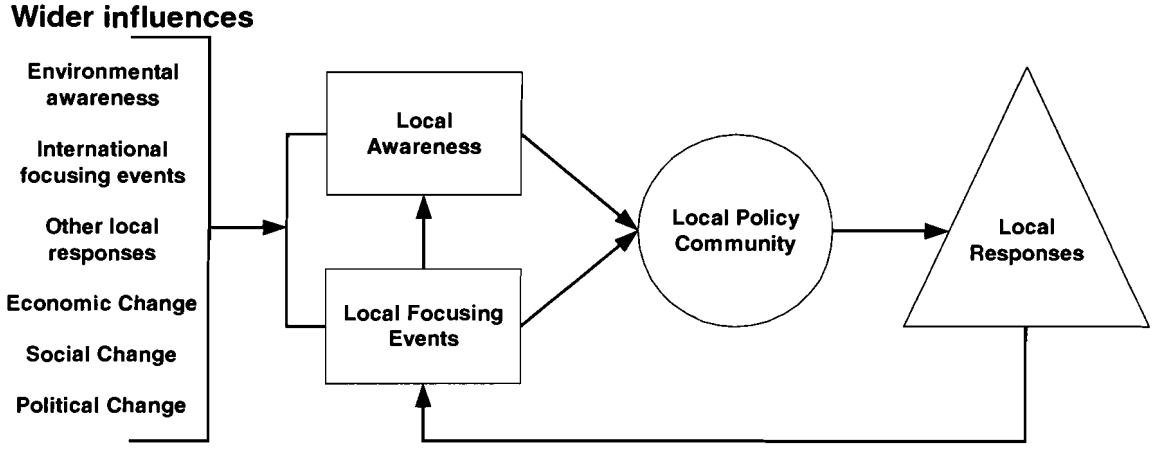
> there is a clear role for geography and geographers in policy-making, given that the fundamental processes which determine national wealth creation, employment and social welfare are *always* mediated in and often constituted at the local level.

The literature on corporate, government and ENGO motivations and decision-making in this chapter suggests an increasing influence of the local in environmental policy-making. For example, the discussion on policy mechanisms demonstrates that there is never one right mechanism that results in effective and efficient environmental policy-making for all locations because governments and corporations have many interwoven interests guiding their decisions. Both governments and corporations can make decisions based on a dialogue of what is 'right' at a certain time and in a certain place. In other words, government and corporate decisions are often made based on the current scenario of interwoven variables and relationships between local institutions. It has also been demonstrated that the motivations and decision-making styles of ENGOs are dependent on the specific organization, its mandate, its ideology and the reason for its awareness of a specific issue or problem.

To examine the importance of the local in the environmental policy-making process, it is important to understand how the impact of both local and wider influences manifest into policy responses. Figure 2 is a proposed model of the environmental

policy-making process. The comparative case studies researched in this dissertation will display how wider influences are understood and interpreted uniquely by local institutions and how they ultimately result in local responses. The interactions of institutions in the local policy community are central to this process.

Figure 2: Contributing influences and local responses in a local environmental policy-making process.



The column on the left side of Figure 2 lists some wider influences that may be absorbed and understood at the local level. The wider influences can be incorporated into local awareness, which impacts which local institutions enter into the policy community. A local focusing event has the ability to affect local awareness and the formation of the local policy community profoundly, since the effects are seen and felt immediately. It is the structure of institutions in the local policy community, that interact in response to local and wider characteristics and events, which inevitably produce local responses.

Examining a single location could result in an assumption of a causal link between an influence or event to a policy response. Since multiple sites are impacted by

similar wider and local influences and events, it is unclear why there are many responses to the same stimulus. An analysis at multiple local levels will demonstrate that the local formation of the policy community has allowed for unique partnerships and collaborations to be formed between institutions which significantly impact that location's responses (Pollard et al., 2000). The history of a location, its economic development path, its citizen's level of environmental awareness, its demographics and its position relative to other locations can all influence the process and the outcome of environmental policy-making to varying degrees. Comparative case studies aid in understanding the integration of characteristics that define place and the connection between places.

Local policy communities and the interaction of the institutions within them form the central components of this dissertation, though many questions remain concerning the actual influence of local policy communities and focusing events on the environmental policy-making process. These will be highlighted with a case study on the cruise ship industry. The following chapter provides context to the cruise ship industry by presenting detailed information on its scale and environmental scope.

CHAPTER 3: THE CRUISE SHIP INDUSTRY: SCALE, ENVIRONMENTAL IMPACT AND POLICY-MAKING

3.1 The Cruise Ship Industry as a Case Study

The international nature and mobility of the cruise ship industry pose policy challenges for a myriad of institutions. Three main characteristics of the cruise ship industry make it and its environmental policies for sewage and graywater particularly appropriate for a comparative analysis on environmental policy-making processes. First, awareness of environmental issues and concerns related to the cruise ship industry and its operations has increased in certain locations in recent years. Second, cruise ships travel via the marine environment and must operate according to a multi-jurisdictional ocean governance framework. Ocean governance has many of its own institutional and jurisdictional challenges, and they have a strong impact on the environmental policy-making process in the cruise ship industry. As Vallejo (1994: 3) noted:

> It is widely recognized that traditional institutional arrangements have considerable limitations in handling the complex policy and management requirements involved in the integrated development of ocean and coastal resources and the protection of the marine environment.

The 1982 *United Nations Convention on the Law of the Sea* (UNCLOS) serves as a framework for issues related to uses of the sea and its resources. The Convention incorporates the concepts and processes of sustainable development and the Common Heritage of Mankind (CHM) into ocean governance. CHM does not ascribe ownership of the ocean environment to any one nation, but instead promotes international co-operation for the management of its resources (Pinto, 1994). The CHM concept involves

developmental, environmental and peace-enhancing approaches to resolving ocean conflicts and managing the ocean environment (Ettinger et al., 1994). The passing of UNCLOS in 1982 made CHM the main principle of ocean governance, but it also revealed two key institutional problems: the need to horizontally integrate sectoral institutions that tend to work independently of one another and the need to vertically integrate regional, national and global institutions (Ettinger et al., 1994). The development of a better understanding of the environmental policy-making process in the cruise industry could contribute to solving these institutional problems in ocean governance.

Third, cruise ships are part of the tourism industry, which operates in a unique manner since it is more concentrated in time (season) and space (Hall, 1994) than conventional industries. In addition, the literature on corporate environmentalism in tourism destinations shows that corporations often integrate sustainable development into their operations in response to increasing environmental demands (Ireland, 1997; Mowforth and Munk, 1998). Cruise ships, as components of the tourism industry, must respond both to market forces and public perceptions, making their policy communities particularly diverse and worthy of study.

To date the academic literature on the cruise ship industry has not dealt with its environmental policy-making process. Academic literature on the cruise ship industry is in its infancy, with most research focusing on the tourism aspects of the industry. For example, a 2006 compilation of articles examined the many geographical, industrial, cultural, social and environmental variables that may affect a cruise ship's travel patterns and interactions with its home ports and host destinations (Dowling, 2006). This

overview of cruise ship tourism included marketing, passengers' perceptions and the industry's interaction with socio-economic and environmental factors. While these articles contribute significantly to an understanding of the scale and scope of the cruise ship industry, they do not delve deeply into policy-making and effective environmental management.

Johnson (2002) examined the impact of the cruise ship industry in Europe and the Mediterranean. Johnson's research asked several questions about the environmental practices of the cruise ship industry and its ability to be sustainable, but provided very few answers. He concluded by suggesting that cruise ship destinations and cruise ship companies should seriously consider integrated management approaches to achieve sustainable development. Pattullo (1996) has analyzed the effects of the cruise ship industry on the destination countries in the Caribbean, providing detailed examples of the social and environmental impacts she observed in her fieldwork.

Research by Australian academics has tended to focus on the impacts of cruise ships on the local economy. For example, Dwyer & Forsyth (1998) and Douglas & Douglas (2001) examined the Australian cruise ship industry from a tourism management perspective, but paid little attention to the industry's impact on the environment. In Canada, Klein (2002) examined the environmental aspects of the cruise ship industry, but his analysis was based largely on personal observations as a seasoned cruise ship passenger. Most other publications on the cruise ship industry and the environment are government policy papers or corporate and ENGO publications, none of which could be considered either academic or unbiased.

The absence of environmental policy-making literature on the cruise ship industry only adds to the environmental management challenges arising as transportation and communication become more global. Central to these challenges are the influences of geography and the diversity of institutional voices seeking to define environmental policies and to balance their outcomes with economic and social concerns.

3.2 Industry Scale and Scope

As a growing sector of the shipping industry, cruise ships have been the source of considerable environmental controversy since the 1980s. The global cruise ship industry grew significantly between the 1970s and the 1990s, with many new and larger ships entering the market. In 2004, there were more than 230 ships in the world's cruise ship fleets (United States (U.S.) Environmental Protection Agency, 2004). The industry continues to grow rapidly, with 7.6 million Americans reporting that they took a cruise in 2002 (U.S. Environmental Protection Agency, 2004). According to a 2001 report by the United Nations World Tourism Organization (UNWTO), the increase in the number of global cruise passengers between 1990 and 2000 was almost twice the increase in all international tourism trips. Cruise ship passengers currently represent 1.3% of all international arrivals and are responsible for increasing revenues in all destinations. UNWTO (2001) estimates that North American and European demand for cruises will surpass 12 million passengers by 2010.

The number of cruise passengers increased by 7.7% worldwide in the 1990s reaching 9.5 million in 1999. In 2003, cruise ship traffic was estimated at 11 to 12 million passengers. North America accounts for 78% of this traffic, Europe accounts for 18% and Asian/South Pacific countries make up the remaining 4% (Ebersold, 2004). The

21 member lines of the Cruise Line International Association (CLIA) reported carrying 9.6 million passengers worldwide in 2003 and expected an 11.5% increase in 2004, to 10.6 million passengers. The U.S.-based CLIA predicts that the market for the cruise industry in North America could be worth more than US$50 billion in the next five years. In the 1990s, the Mediterranean and Asia/South Pacific/Australian cruise ship industries expanded and surpassed the Alaskan/Canadian industry in terms of the percentage of passengers they account for. Table 02 summarizes the growth of the cruise ship industry since 1970.

Table 02: Growth of the Cruise Ship Industry

Year	Number of Passengers Worldwide
1970	500,000
1998	9.5 million
2010	14.2 million (estimate)

Source: Sweeting and Wayne, 2006

There has been considerable corporate consolidation among operators in the cruise ship industry in recent years. While the existing global cruise ship fleet was built in 24 different countries, 5 European countries have accounted for 98% of all shipbuilding since 1995 (Ebersold, 2004). Table 03 presents information on passenger capacity and cost for the ships joining the global cruise ship fleet between 2006 and 2008.

Table 03: New Cruise Ships Joining the Global Cruise Ship Fleet, 2006-2008

Cruise Ship Line	Ship Name	Passenger Capacity	Cost ($US millions)
2006			
Royal Caribbean International	Freedom of the Seas	3,600	$720
P&O Princess Cruises	Crown Princess	3,100	$400
Norwegian Cruise Lines	Pride of Hawaii	2,400	$395
2007			
Cunard	Queen Victoria	1,850	$472
Norwegian Cruise Lines	Norwegian Pearl	2,384	$500
P&O Princess Cruises	Emerald Princess	3,100	$400
Carnival Cruise Lines	Carnival Freedom	2,974	$400
Royal Caribbean International	Liberty of the Seas	3,600	$720
2008			
Carnival Cruise Lines	Splendor	3,000	$475
Celebrity Cruises	Solstice		
P&O Princess Cruises	Canberra	3,100	$490

Source: Schwartzman (2006)

The top 10 cruise ship companies control 64% of global cruise berth capacity. Carnival Corporation, Royal Caribbean International and Norwegian Cruise Lines/Star Cruises are the three major cruise corporations internationally, which together own 90% of the ships in the cruise ship industry. After major consolidations in the past 10 years, Carnival Corporation now owns Carnival Cruise Lines, Holland America, Costa Cruises, P&O Princess plc and Cunard lines as well as other cruise lines specific to some European countries. As a result, in 2003 Carnival Corporation owned approximately 90 of the 141 cruise ships that were based in the United States. Moreover, Carnival Cruise Lines, Royal Caribbean Cruise Lines and Norwegian Cruise Lines/Star Cruises all focus on

large-capacity ships: 60% of their passengers in 2003 were on ships with 2,000+ passenger capacities, with another 24% on ships with capacity between 1,500 and 1,999 (Ebersold, 2004). Royal Caribbean Cruise Lines carries more passengers on large-capacity ships than any other cruise line and has an average lower-berth capacity of 2,167. In 2003, the average passenger capacity of the Carnival Cruise Lines and Norwegian Cruise Lines was 1,759 and 1,805, respectively (Ebersold, 2004). Appendix B contains a complete listing of cruise ships (2004) by size, passenger capacity and cruise destinations. Table 04 provides information on market shares within the global cruise ship industry.

Table 04: Market Share of Major Cruise Ship Corporations, 2003

Parent Company	Cruise Line	Approximate Number of Ships	Approximate Global Market Share (%)
Carnival Corporation		**54**	37
	Carnival Cruise Lines	21	14
	Holland America Line	13	9
	P&O Princess Cruises plc	18	12
	Cunard Line	2	1
Royal Caribbean International	Royal Caribbean Cruise Lines	**30**	21
		19	13
	Celebrity Cruises	11	8
Norwegian Cruise Lines/Star Cruises		**12**	8
Radisson Seven Seas		7	5
Total		**103**	**70**

Source: http://www.cruiseserver.net

3.3 Policy Communities in the Cruise Ship Industry

A policy community in the cruise ship industry is defined in relation to its location and comprises all institutions affecting that location, regardless of how indirect their connection may be. Cruise ship policy communities involve government departments and agencies, corporations and NGOs, with institutions ranging from the supranational level, like the International Maritime Organization (IMO), to classification societies,

industry associations and government officials. Table 05 is a list of potential members of a cruise ship policy community. A local cruise ship policy community serves many functions including setting the parameters for operations and procedures aboard the ships and regulating the behaviours of cruise ship passengers and crews in and around ports. It is not unusual for cruise ship corporations to have agreements with local businesses, government departments or agencies concerning which services they will use, where they will go and the level of local interaction they may have. Local agreements are formed and revised by members of the policy community and based on interactions between the institutions. Environmentally, emissions from cruise ships are regulated through laws, policies and agreements. Many of these regulations come from the national or international level and are tailored by the local policy communities to reflect local awareness and characteristics. A detailed review of the regulations pertaining to sewage and graywater in the six chosen locations will be presented in Chapter 4.

Table 05: Potential Members of Policy Communities in the Cruise Ship Industry

Non-Governmental Organizations	Corporations	Government
Coastal communities Aboriginal groups Media Interest groups Classification societies	P&O Cruises Princess plc Holland America Cruise Lines Carnival Corporation Norwegian Cruise Lines Royal Caribbean International International Council of Cruise Lines North West CruiseShip Association Cruise Line International Association	Local/Municipal Provincial or state Federal Port authorities International Maritime Organization

3.4 Environmental Policy-making in the Cruise Ship Industry

The increase in the number of ships and passengers in the cruise ship industry has caught the attention of supranational organizations, the media, governments and ENGOs. Many port locations have updated their facilities to accommodate cruise ships and have benefited from the industry's rapid growth. As the number of ships in various locations has increased, new environmental concerns regarding their activities and potential environmental effects have emerged (Klein, 2002).

Governments have been increasingly exposed to the influence of environmental institutions in policy communities that regulate the cruise ship industry. In some locations, federal governments have transferred policy decisions on the cruise ship industry to both international and/or local levels. Corporations have responded to international and local demands by establishing environmental policies in the form of codes of conduct, voluntary monitoring and enforcement and MOUs.

The International Maritime Organization (IMO), an agency of the United Nations, is the main supranational body governing the shipping industry, operating via the *International Convention for the Prevention of Pollution from Ships* (MARPOL 1973/78). The Convention contains a series of acts prohibiting the dumping or discharging of certain items including oil, hazardous waste, plastics and other toxins. In most cases, MARPOL has been effective in bringing about environmental improvements in the cruise ship industry; however, some issues, such as the regulation of wastewater discharges from cruise ships, remain unresolved.

3.4.1 Cruise Ship Discharges

Since the 1990s, the reputation of the cruise ship industry has been tarnished by several large fines for deliberate discharges of wastewaters including oil and bilge water. Bilge water refers to the oil that leaks from engine and machinery spaces or from engine-maintenance activities and mixes with water in the hull of the ship. The discharging of untreated oil and bilge water is strictly prohibited throughout the world and cruise ships have their own industry standards to regulate and prohibit discharges of untreated oil and bilge water. Despite this, several ships have been caught and charged with deliberately dumping bilge water (General Accounting Office of the United States, 2000).

The discharge of other wastewaters such as graywater, the wastewater from sinks, showers, galleys and laundries, and sewage is also cause for concern. Although oil, hazardous waste, and bilge water present more of a danger to the marine environment, graywater and sewage were chosen for analysis in this study because of the current vagueness in their regulation and the controversy that these wastewaters have fuelled in some policy communities.

3.4.2 Environmental Effects of Sewage

A one-week voyage on an average cruise ship with a passenger and crew count of 2,200 can generate 210,000 gallons of sewage water (Schmidt, 2000; Herz and Davis, 2002). Sewage, or blackwater, refers to toilet waste. One of the primary concerns about the entry of sewage into the marine environment is the introduction of nutrients such as nitrogen and phosphorus. Excess amounts of these nutrients can cause algae blooms, which prevent sunlight from reaching vegetation on the ocean floor and affect the growth of the sea grasses which are essential to the marine ecosystem. Sea grasses are important breeding grounds for fish and other marine organisms. Algae blooms also consume oxygen, which fish need, thereby endangering the lifespan of fish nearby (Schmidt, 2000).

Macdonald (1996) noted that nutrients from effluents such as sewage in land-based pollution in Sydney, Australia, posed one of the most serious large-scale threats to the country's near-shore environment. Untreated sewage introduces nutrients into the marine environment that can alter the ecosystem. The amount of raw sewage the marine environment can tolerate depends on the width and depth of the water in that area, water flow and the proximity of the discharge to shellfish beds. Treated sewage may also contain numerous chemicals that are rare in the marine environment, such as chlorine, and may cause damage to or toxicity in marine life and mammals.

It is difficult for governments to regulate the treatment and disposal of sewage from cruise ships, because while sewage is known to cause human health problems, coral diseases and other marine damage, the standards to prevent that damage vary by geography and ecosystem. Oceana, a leading American ENGO, has conceded that the

causes of ocean pollution are complex and that there is no scientific evidence that pollution from cruise ships causes any direct damage (Loney, 2003). Consequently, ambiguity regarding the environmental impact of sewage discharges from cruise ships has caused countries to develop an array of different sewage-treatment requirements for the marine sanitation devices (MSDs) on cruise ships. Table 06 summarizes the sewage discharge regulations in the six sites chosen for this study, as well as related state or international regulations.

MARPOL's Annex IV on sewage has proposed regulations for sewage emissions from MSDs with the purpose of environmental protection. Australia has ratified Annex IV and has made the proposed regulations the minimum standard in all states. In Sydney, New South Wales, the sewage emission standards from MSDs are at the maximum level with zero discharge allowed in Sydney inland waters. In Canada, there is currently no sewage emission legislation established by either the individual ports or the provincial or federal governments. The United States has federal requirements for MSDs as regulated by the United States Coast Guard; however the regulations are not as stringent as the MARPOL Annex IV proposal for suspended solids or biochemical oxygen demand. In Alaska, a new set of standards has been accepted for large commercial vessels with advanced waste water treatment systems, which allows for continuous discharge anywhere in Alaskan waters. More detailed information will be provided in Chapter 5.

Table 06: Sewage-Treatment Requirements for Marine Sanitation Devices in Six Chosen Sites

Site	Suspended Solids	Fecal Coliform Bacteria	Biochemical Oxygen Demand	Residual Chlorine
REQUIREMENTS				
INTERNATIONAL				
MARPOL, Annex IV	Less than 50mg/litre	Less than 250/100ml	Less than 50mg/litre	As low as practicable
AUSTRALIA				
Hobart, Tasmania	Less than 50mg/litre	Less than 250/100ml	Less than 50mg/litre	As low as practicable
Sydney, New South Wales	Zero discharge	Zero discharge	Zero discharge	Zero Discharge
CANADA				
Vancouver, British Columbia	No requirements	No requirements	No requirements	No requirement
Prince Rupert, British Columbia	No requirements	No requirements	No requirements	No requirement
USA				
Seattle, Washington	Less than 150mg/litre	Less than 200/100ml	No requirements	No requirement
Juneau, Alaska	Less than 150mg/litre	Less than 200/100ml	No requirement	No requirement

Source: Compiled from various government and ENGO documents and supplemented by Web-based searches

Currently Sydney and Alaska are the only two of the six sites that have enforceable regulation by government for the operation of MSDs. Vancouver, Prince Rupert and Seattle all rely on industry self-regulation by the cruise ship companies and their established environmental guidelines for the operation of the MSDs and their emissions,

which exceed the international level established by MARPOL. Hobart, a city in the state of Tasmania, exists as a unique case. On paper, Hobart has regulated sewage requirements to meet the international standards, yet the port itself does not monitor or enforce sewage emissions. Table 07 shows the policy responses to cruise ship sewage discharges in each of the six sites chosen for this study.

Table 07: Policy Responses to Cruise Ship Sewage Discharges in Six Sites

Site	Regulation	Industry Self-regulation
	Policy Response	
Hobart		
Sydney	✓	
Vancouver		✓
Prince Rupert		✓
Seattle		✓
Alaska	✓	

Source: Compiled from a review of the regulations

3.4.3 Environmental Effects of Graywater

A one-week voyage on an average cruise ship generates approximately 1,000,000 gallons of graywater, based on a passenger and crew count of 2,200 (Schmidt, 2000). Many institutions argue that graywater has not been adequately regulated internationally, nationally or locally. Graywater has traditionally been subject to little or no regulation because it was considered to have a relatively minimal impact on the environment. However, water testing undertaken by the Alaskan Department of Environmental Conservation in 2001 has proven otherwise. Its graywater sampling tests in Alaska

revealed bacteria and fecal coliform counts at 50,000 times the legal limit for MSDs (Science Advisory Panel, 2002).

Graywater is known to contain toxic substances or chemicals not normally found in a marine environment, including detergents, cleaners, metals, pesticides, oil and grease and medical and dental waste, which pose health risks to marine mammals and vegetation (Schmidt, 2000; Science Advisory Panel, 2002). The United States delegation to the IMO's Marine Environment Protection Committee (MEPC) contended that graywater may cause more harm than sewage (Schmidt, 2000; Herz and Davis, 2002). Alaska is currently the only government that specifically regulates the discharge of graywater. Alaska prohibits cruise ships from discharging graywater into Alaskan waters with two exceptions. Graywater can be discharged if the ship is under way at a minimum of 6 knots and more than one nautical mile from shore or if the geometric mean of samples taken during a 30-day period is less than 20 fecal coliforms/100ml, not more than 10% of the samples exceed 40 fecal coliforms/100ml, total chlorine residual does not exceed 10.0 µg/l, and the discharge complies with secondary treatment standards.

3.4.3.1 Isolating Sewage and Graywater Discharges

Sewage and graywater discharges from ships were rarely subjected to regulations before the turn of the 21st century. Cruise ships tend to produce and carry more sewage and graywater than other ships due to the volume of passengers and crew carried on voyages. For North American ENGOs, the main environmental concern with cruise ships is pollution emissions, whether bilge water, blackwater, graywater, toxic substances or air emissions (Schmidt, 2000). This dissertation focuses on sewage and graywater, but other pollutants, including bilge and photo chemical, have been shown to contaminate both the

sewage and graywater streams. According to the US-based ENGO Earth Island Institute; "The problem is larger than sewage and graywater, it is about ignoring other sources of pollutants." (pers. comm., Earth Island Institute, July 18, 2003).

The growth of the cruise industry both in terms of ships and passengers has brought the potential impacts of these discharges to the fore of wastewater policy-making in the cruise industry, as have increased publicity about environmental violations and the accompanying penalties. Table 08 lists environmental violations by, and fines against the global cruise ship industry between 2000 and 2004 for sewage and graywater discharges that were reported in public documents or the media.

Table 08: Environmental Violations and Fines for Sewage and Graywater Discharges Reported in the Media or Public Documents, 2000-2004

Date	Ship, Cruise Line Explanation of Offence(s)	Fine	Nature of Offence
December 2004	Holland America Line pleaded guilty to a misdemeanor for its discharge of sewage into Juneau Harbor in August 2002. The company paid a $200,000 fine and $500,000 in restitution and spent $1.3 million to improve its ships' handling of waste.	$2 million	Sewage discharge
October 2004	*Pride of Aloha*, Norwegian Cruise Lines Discharged approximately 300 gallons of effluent into Hilo Harbor, Hawaii.	None	Violation of MOU
June 2004	Holland America Line's former Vice President Richard K. Softye was fined $10,000 after pleading guilty to falsely certifying that Holland America Line was performing environmental audits when it was not. He was also ordered to perform 450 hours of community service while on probation for three years.	$10,000	Falsifying records
May 2003	*Norwegian Sun*, Norwegian Cruise Lines (NCL) The ship was cited by the State of Washington for an illegal discharge of	None	Sewage discharge

Date	Ship, Cruise Line Explanation of Offence(s)	Fine	Nature of Offence
	16,000 gallons (40 tons) of raw sewage into the Strait of Juan de Fuca.		
January 2003	*Ecstasy*, Carnival Cruise Line The company reported an accidental discharge of 60 gallons of graywater while anchored at Avalon Bay (Catalina Island, California), approximately one-half mile from land.	None	Graywater discharge
October 2002	*Crystal Harmony,* Crystal Cruises It was reported in March 2003 that contrary to a written promise not to discharge in the Monterey Bay Marine Sanctuary, the ship discharged 36,000 gallons of treated bilge, treated sewage and graywater.	None — but the ship was banned for life from Monterey, CA, and Crystal Cruises was banned from Monterey, CA, for 15 years	Sewage discharge
August 2002	*Ryndam,* Holland America Line Approximately 40,000 gallons of sewage sludge were discharged into Juneau Harbor.	$2 million	Sewage discharge
October 2001	*Spirit of Oceanus,* Cruise West Discharged 24,000 gallons of graywater in the port of San Diego.	None	Graywater discharge
June 2001	*Rhapsody of the Seas,* Royal Caribbean International Discharged 200 gallons of graywater into Juneau Harbor.	Unknown (up to $25,000 can be levied for this offence)	Graywater discharge
June 2001	*Mercury,* Celebrity Cruises Discharged treated wastewater at Juneau without the required permits. Tests of the wastewater indicated that it was more acidic than permitted for discharging within a mile of shore.	Unknown (up to $25,000 can be levied for this offence)	Wastewater discharge
May 2001	*Westerdam,* Holland America Line Discharged graywater while docked in Juneau — estimated by Holland America Line at 30 to 100 gallons.	Unknown (up to $25,000 can be levied for this offence)	Graywater discharge
May 2001	*Norwegian Sky,* Norwegian Cruise Line Discharged blackwater (sewage) for 20 to 30 minutes while the vessel was en route from Juneau to Ketchikan and within 3	Unknown (up to $25,000 can be levied for this offence)	Sewage discharge

Date	Ship, Cruise Line Explanation of Offence(s)	Fine	Nature of Offence
	miles of the Alexander Archipelago. Fecal coliform counts were 3,500 times the allowable federal standard and total suspended solids 180 times the standard.		
Jan - May 2001	*Holiday,* Carnival Cruise Line Discharged 768,000 gallons of graywater into the Port of San Pedro, California.	None	Graywater discharge

Sources: Klein, 2002, and cruisejunkiedotcom at

http://www.cruisejunkie.com/envirofines.html

3.5 The Debate on the Environmental Effects of Discharges

The lack of clear scientific evidence and the difficulty in trusting the cruise industry's commitment to the environment have contributed to confusion and fuelled controversy between the institutions involved. In North America, ENGOs are dissatisfied with both the level of enforcement and scientific evidence to support or challenge cruise ship claims regarding their discharges. In fact, it is difficult to determine who is polluting and how much pollution is occurring because inspection and monitoring are minimal. One Canadian-based ENGO, West Coast Environmental Law, has argued that laws and policies on cruise ship discharges are out of date and do not reflect the growth of the industry and its increasing levels of pollution (Nowlan and Kwan, 2001). Other Canadian ENGOs have voiced concern that the absence of strong and specific government regulations in the cruise sector further encourages waste emissions in Canadian waters (Nowlan and Kwan, 2001).

Many ENGO publications on this matter cite a United States General Accounting Office (GAO) report on illegal cruise ship discharges called *Marine Pollution: Progress Made to Reduce Marine Pollution by Cruise Ships, but Important Issues Remain.*

According to this report, there were 104 confirmed cases of illegal discharges in North American waters between 1993 and 1998 by cruise ships and other vessels. Most cases (72%) involved the accidental discharge of oil or oil-related substances. Unfortunately, ENGOs citing this study seldom point out that commercial international-flag cruise ships represented only 4% of all confirmed illegal discharges during this period. The GAO report also noted a dramatic decrease in the number of incidents of pollution by cruise ships between 1993 and 1998, from 25 incidents to 9 in those five years. Although the GAO concluded that more action was required to address the contribution of cruise ships to marine pollution, the report was optimistic with regard to industry self-regulation and public/private partnerships.

The current levels of pollution and their effects on water quality, marine life and human health are highly contested issues. Unfortunately, little reliable data exists on these subjects, and only a few studies have been conducted on the cumulative effect of pollution on ocean activities. Areas of concern include fecal coliform and biochemical oxygen demand (BOD) counts, which affect water quality; mammal, bird and sea life; and possibly human health. BOD is the term used to describe the oxygen used when suspended solids decay. The high levels of fecal coliform found in tests of cruise ship discharges during the 2000 cruise ship season in Alaska brought these issues to the fore.

The current perception of most ENGOs is that impartial enforcement and monitoring have not been conducted to a satisfactory level. Most environmental auditing reporting on the industry is managed by the cruise ship industry and its associations. ENGOs are critical of industry self-regulation arguing that documents demonstrating compliance may be falsified. As one ENGO interviewee commented:

> Cruise ship companies are convicted felons and as such should never receive the benefit of doubt. Memorandums of Understanding [for the cruise ship industry] are not worth the paper they are written on (pers. comm., Ocean Advocates, June 23, 2003).

In the absence of adequate scientific evidence, the North American ENGO community has adopted a precautionary approach to ocean governance and cruise ships, assuming that the environmental effects of cruise ship are negative until proven otherwise.

In Australia, the environmental effects of the cruise ship industry have not attracted much ENGO concern. As one respondent observed, "there is no public policy debate about the cruise industry in Australia at this time. If there were a problem, the people would be vocal, but there are not really any [environmental] costs at this time." (pers. comm., Tasmania Conservation Trust, January 23, 2003). Similarly, a scientist working for Sydney's Waterways Authority claimed that cruise ships and their environmental effects are covered by wider, more inclusive environmental legislation specific to New South Wales. He also remarked that "sewage and graywater are not as much our concerns as the nutrients being used to treat them" (pers. comm., Waterways Authority, April 16, 2003). In Hobart, an officer at Marine and Safety Tasmania claimed that "Hobart has an on-going current which self-cleans the harbour" (pers. comm., Marine and Safety Tasmania, February 7, 2003).

Governmental institutions also have varying viewpoints. The Australian federal government does not directly link sewage discharges to cruise ships, but a representative acknowledged that "the discharge of raw or poorly treated sewage contributes to the overall problem of the seas" (pers. comm., Australian Maritime and Safety Authority

(AMSA), 2003). A representative of the Canadian federal government has stated that "we trust the cruise ship industry's corporations and their adherence to the environmental standards they have implemented" (pers. comm., Fisheries and Oceans Canada, September 8, 2003). In the United States, the report of the Pew Oceans Commission (2003) described the notion of cruise ships as a major source of pollution in U.S. coastal waters or beaches as a popular myth.

From the industry perspective, cruise lines are a business and profits are the bottom line. Corporations understand the links between the environment, their reputation, customers, stakeholders, comparative advantages and profits. The move towards ecologically sensitive behaviour demonstrates that cruise companies know their environmental reputation is important to their customers and stakeholders and that gambling with this aspect of their corporate identity could be extremely damaging. Many argue that most cruise ships may not act responsibly out of sincere environmental concern but rather because it is good business practice in the environmentally conscious 21st century (pers. comm., NWCA, October 15, 2003). Adherence to environmental standards maintains the industry's reputation while also offering means of avoiding stricter government regulation.

It is important to note that the cruise industry has been developing new environmental policies and state-of-the-art waste treatment technologies, which include the Rochem, Alpha-Laval, Hamworthy, Hydroxyl and Zenon systems. Table 09 provides summary descriptions of the innovative systems recently introduced to treat cruise ship sewage and graywater. Holland America's new Zenon system, for example, can purify

blackwater and graywater to near-drinking-water quality or with minimal nutrient levels (Holland America, 2001).

Table 09: Innovative Waste Treatment Systems, for Sewage and Graywater, Introduced on Cruise Ships

Cruise Ship Companies	Innovative Waste Treatment System
Carnival Cruise Lines	Rochem ultra filtration system
Celebrity Cruises	Reverse osmosis process by Rochem
Holland America Line	ZENON membrane bioreactors
Norwegian Cruise Lines	Scanship biological reactor and disinfection system
P&O Princess Cruises	Hamworthy membrane bioreactors to break down and screen wastewater
Radisson Seven Seas Cruises	Hamworthy membrane bioreactors to break down and screen wastewater
Royal Caribbean International	Physical and chemical processes to break down wastewater

(Sweeting and Wayne, 2006)

The lack of uncontested scientific evidence on the effects of sewage and graywater on the natural environment has led to numerous opinions regarding the environmental practices of cruise ships, creating multiple complications for the cruise ship policy community. Institutions can exploit the lack of evidence to make claims against one another or to achieve a desired policy goal. Table 10 was reproduced from the North West CruiseShip Association website and lists responses from the International Council of Cruise Lines to the many ENGO criticisms of the cruise ship industry. Both ENGOs and the industry have used the lack of scientific evidence to support their own ideologies in the debate over the environmental effects of cruise ships. Unfortunately, there is not enough data on cruise ship sewage and graywater discharges to resolve this debate.

Table 10: The Debate about the Environmental Effects of Cruise Ships — ENGOs and the Industry

ENGO Statements	International Council of Cruise Lines: Industry Response
"The cruise industry has a legacy of polluting our oceans." (Bluewater Network)	The ocean is our home. We are a small part of the problem, but a big part of the solution. The cruise industry recognizes that its very vitality depends on clean, healthy oceans and pristine marine sanctuaries. Clearly, it is in our inherent business interest as well as the public interest to be the strongest possible stewards of our industry's lifeblood - the environment. Our actions in preserving the environment often surpass the already stringent standards required by U.S. and international law. From investing in technological advances or following leading best practices to simply creating a more environmentally friendly shipboard culture, we are continuously working to improve our environmental management to minimize - and whenever possible eliminate - the environmental impact of our ships.
"Cruise ships are floating cities that produce enormous volumes of completely unregulated or inadequately regulated waste." (Schmidt, 2000: 1)	In international waters, the International Maritime Organization develops and oversees conventions and treaties that apply to cruise ships. The major treaty governing the cruise industry is the 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) that was modified in 1978 and updated in more recent years by various amendments. Every coastal nation where cruise ships operate has the authority to enforce these international conventions. "Industry management systems and guidelines are commendable and in some cases exceed state, national and international standards." (Center for Environmental Leadership in Business, 2003)
"Cruise ships routinely violate the law by dumping dirty water and trash into our oceans and coastal waters without regard to the environment." (Bluewater Network)	ICCL members meet or exceed all international standards for environmental compliance. Ships may not discharge into the water any hazardous waste, including: dry-cleaning fluids or solvents; or chemicals used for photo processing, printing or photocopying; fluorescent or mercury vapor lamps; and certain types of inks, medicines and batteries. These items are held on board until they can be properly disposed of or recycled on land. Ships are required to reduce the solid waste they generate by: purchasing in bulk, encouraging suppliers to use more efficient packaging; reusing packaging when possible and packaging more environmentally friendly materials. In addition, ships must actively promote the recycling of glass, metals, paper, wood and cardboard. ICCL member lines routinely and proactively work to raise the level of environmental awareness of crew members and

ENGO Statements	International Council of Cruise Lines: Industry Response
	passengers alike. Crews receive advanced training in shipboard safety and environmental management procedures for those directly involved in these areas, while others responsible for processing wastes are trained in specific environmental duties and responsibilities.
"A typical cruise ship on a one-week voyage generates more than 50 tons of garbage, two million gallons of graywater (waste water from sinks, showers, galleys and laundry facilities), 210,000 gallons of sewage, and 35,000 gallons of oil-contaminated water." (Bluewater Network)	There is no question that cruise ships generate garbage and waste- just as would any group of people living together on land. Individuals boarding a vessel cannot be expected to suddenly stop generating garbage and waste. All ICCL member lines proactively participate in developing responsible standards that are actually stricter than typical land-based community waste management programs. Cruise lines have aggressively implemented waste management programs that actually reduce the creation of waste and recycle large amounts of it. ICCL cruise lines recycle glass, aluminum, other metals, paper, wood and cardboard. In the last 10 years, cruise ships have cut waste and garbage almost in half, despite a growth in cruise capacity averaging 7.6% annually.
"Cruise ship pollution is a BIG problem." (Oceana)	The greatest pollution threat to coastal waters is from nonpoint sources, including fertilizers, nutrients from livestock manure, oil and grease from paved surfaces, and drainage from abandoned mines. Cruise ships do not create a massive amount of pollution. The entire cruise industry represents only two-tenths of one percent of all ocean-going vessels worldwide and is the only segment of the maritime industry on the cutting edge of environmental protection. ICCL members adhere to environmental standards and practices that meet or exceed the laws wherever we operate in the world.
"The majority of beach closures because of contaminated ocean waters are the result of cruise ships dumping blackwater or sewage into ocean waters close to shore." (Oceana)	There have been no reported beach closures due to cruise ship contamination. The overwhelming percentage of beach warnings and closures result from land wastewater discharges or runoff by local communities. Cruise ships account for a small fraction - 0.2 percent - of total maritime traffic and, are equipped with state-of-the-art treatment capabilities. Wastewater is not discharged in the coastal waters unless these advanced wastewater systems are being used, and from a distance of 4 miles off shore.
"The average-sized cruise ship...generates 255,000 gallons of graywater every day." (Oceana)	ICCL cruise lines have proactively adopted a standard of prohibiting graywater discharges within four miles of shore. This is despite the fact that the EPA does not limit or prohibit these discharges at all. Many ICCL members also continue to research new technology and pilot graywater treatment systems onboard their vessels to improve treatment procedures before discharge, better managing the reuse of

ENGO Statements	International Council of Cruise Lines: Industry Response
	treated water.
"The average-sized cruise ship generates...30,000 gallons of human waste every day and can discharge sewage directly into the ocean three miles from shore." (Oceana)	As with graywater discharges, ICCL member lines have adopted a tougher standard of discharging sewage or "blackwater" than required by law. Our lines discharge only while a ship is more than four nautical miles from shore and under way at a speed of six knots or greater unless the effluent is treated to the state of Alaska standards for advanced wastewater treatment. The *Clean Water Act* requires ships to hold or treat blackwater using an approved Marine Sanitation Device (MSD) certified, approved and inspected by the U.S. Coast Guard. Our members have also pioneered the development and use of advanced wastewater treatment technology that treats wastewater beyond the capability of most land based wastewater treatment facilities.
"For the cost of a can of soda per passenger, cruise ships can stop polluting the oceans." (Oceana)	The vast majority of cruise ships invest far more than the cost of a can of soda per passenger to properly dispose of waste generated on voyages. Over the past five years, cruise lines have spent an average of $2 million per ship. If ICCL members retrofit all of the vessels with new technology that Oceana would approve of, it would take many years. By the time the round of retrofits would be finished, new technology could be developed, allowing environmental groups to find new reasons to continue accusing the cruise lines. Our record and environmental history are very clear: Anti-pollution measures are not about money. They are about spending dollars where they will do the most good for the environment. The industry has never shied away from that investment and never will. There is, at present, no silver bullet to solve wastewater problems, as Oceana and other groups would lead you to believe. The Cruise Industry is, however, working with the very best people and organizations in the world to find systems that treat wastes in the very best way possible.

Source: NorthWest CruiseShip Association, Cruising for the Facts - Cruise Industry Myths & Facts (2006) http://www.nwcruiseship.org/group.cfm?menuId=95

3.5.1 Scientific Data and Technological Know-how

The process of gathering data for this dissertation highlighted numerous regulatory obstacles to performing scientific studies on wastewater discharges from cruise ships.

Problems of jurisdiction and sectoral approaches to management arose because the impact of a discharge on the environment depends largely on the specific ecosystem, other marine activities which occur there and the effect of cumulative impacts. Without a scientific or technological basis from which to address these jurisdictional and sectoral management problems, the environmental debate between the cruise ship industry, ENGOs and various levels of government will continue.

UNCLOS has attempted to address this dilemma by granting a degree of control to nations and provinces/states over their marine waters and coastlines. UNCLOS has set the Exclusive Economic Zone (EEZ) at 12 to 200 nautical miles seaward of the territorial sea baselines for activities such as fishing and non-living exploration. The confusion associated with environmental testing, monitoring and enforcement for sewage and graywater occurs primarily in the areas less then 12 nautical miles from shore. Nations and states have the right to enforce legislation on environmental discharges of sewage and graywater within the 12 nautical miles beyond their territorial sea baseline. Canada, Australia and the US have all acted upon their rights to regulate these areas, but in different ways. Canada and the United States each have a series of small no-discharge zones, and all Australian states except Tasmania regulate sewage discharges in their inland waters.

The United States' regulations prohibit the dumping of raw sewage within 3 nautical miles of its sea baseline. Unfortunately, it is very difficult to scientifically determine the effect of a specific discharge or activity. One of the main problems is identifying the source of a particular impact. As a representative of Sydney Ports points out (pers. comm., April 18, 2003):

> It is difficult to isolate the perpetrator. How do you know if an elevated fecal coliform count in the marine water comes from the discharge of a cruise ship, sailboat, ferry, or from the land-based wastewater treatment system.

When it is impossible to identify the perpetrators of marine water pollution determining the appropriate discharge levels for cruise ship sewage and graywater becomes problematic.

The differences in the interpretation of scientific studies by members of a policy community, including ENGOs, governments or corporations, can also be a barrier to effective policy-making. For example, the Alaska Department of Environmental Conservation (ADEC) conducted whole-effluent toxicity (WET) tests in July 2002 on wastewater effluent from five different cruise ships operating in Alaskan waters (pers. comm., ADEC, July 15, 2003). Short- and long-term lethal and reproductive effects on indigenous marine animal species were examined in various dilutions of discharge streams from cruise ships. The study concluded that at a dilution rate of 200:1, wastewater has essentially no impact on animal species. The ADEC scientific review panel stated that treated wastewater discharged from large cruise ships in accordance with Alaskan law while the ships are under way is not of concern (pers. comm., ADEC, July 15, 2003). However, an ADEC representative noted the study does not indicate that wastewater discharges have zero impact or that marine mammals will never be in jeopardy; the ADEC study was an isolated test and did not consider other marine pollutants or long-term and cumulative effects of the discharges (pers. comm., ADEC, July 15, 2003).

Similarly, a representative of the Earth Island Institute warned that "just because the test results suggests that the current levels of discharge from the cruise ships cause no significant damage, the test cannot predict the future" (pers. comm., July 18, 2003). The representative added that location-specific scientific studies needed to be carried out to determine the amount of sewage discharge in a given location that will not irreversibly damage the environment. A representative of Oceana stressed that cumulative effects matter significantly, since adding even a small amount of sewage to a body of water that already receives sewage inflows from a land-based source could cause the maximum sustainable capacity of that ecosystem to be exceeded and result in irreparable damage (pers. comm., July 17, 2003).

The scientific and technological data needed to examine different coastal users has been slow to evolve, hampering the policy-making process (pers. comm., Fisheries and Oceans Canada, Sept. 8, 2004). In particular, it is difficult to perform scientific studies and monitor and enforce regulations without adequate political support and access to the appropriate technological know-how. A representative of Fisheries and Oceans Canada remarked that "even if there was the funding to support the studies we do not have the technical know how or the political backing to perform them" (pers. comm., September 8, 2003).

In many cases, a lack of technology or technological know-how can lead to gaps in environmental policy-making. For example, Annex IV of MARPOL IV has been ratified internationally, but neither the United States nor Canada has signed it or can comply with all its regulations. In particular, Regulation 10 of Annex IV requires that all ports have facilities for offloading sewage from vessels, and neither the United States nor

Canada has that level of infrastructure at all of their ports (pers. comm., Environmental Protection Agency, June 25, 2003).

A representative of the United States Coast Guard remarked on the irony of the application of MARPOL's Annex IV to the North Pacific cruise market, stating that, "although Annex IV was created largely as a response to the growing number of passenger vessels, many of the cruise ships possess environmental technology that exceed the sewage offloading processes in most locations" (pers. comm., United States Coast Guard, July 15, 2003). Seattle, Juneau and Vancouver possess only primary or secondary treatment facilities for their land sewage, and Prince Rupert has almost no treatment system in place. In these locations, forcing cruise ships to offload sewage would not improve the overall state of the environment at this time (pers. comm., United States Coast Guard, July 15, 2003). Despite the lack of scientific data, new environmental policies continue to be made, raising questions about the appropriateness of the entire environmental policy-making process.

The environmental debate in the cruise ship policy community is both heated and significant. Because of the lack of scientific evidence on the environmental impacts of cruise ships remarks made during the interviews concerning environmental assumptions must be considered as opinions rather than facts. This dissertation focuses on how geographically-specific characteristics and institutions governing the cruise ship industry affect the environmental policy-making process. While the environmental viewpoints of the institutions will assist in determining the motivations for their actions and the resulting policies, the environmental impacts of those policies cannot be known until more scientific data on the environmental effects of cruise ships is available.

3.6 Conclusion

This chapter has provided an overview of the cruise ship industry and explained the impact of the absence of scientific data on sewage and graywater discharges. The potential institutions involved in cruise ship policy communities have been identified, and policies regarding sewage and graywater discharges have been selected for study. The next chapter will provide further information on the current regulation governing sewage and graywater discharges from cruise ships in the six sites selected for this study. Detailing the existing regulation for each site will clarify how current regulations for the cruise ship industry differ from site to site. The research in this dissertation was conducted to examine the environmental policy-making process to determine how place-specific characteristics, events and institutions elicit policy responses and the understanding of what policies currently exists and why will assist in highlighting what factors shaped their formation.

CHAPTER 4: REGULATIONS GOVERNING WASTEWATER DISCHARGES FROM CRUISE SHIPS

Many factors influence the policy-making decisions of environmental regulators of the cruise ship industry. These regulations are complicated and are often confounded by jurisdictional conflicts among institutions, ports and countries. The review of regulations in this chapter was conducted to provide detailed information on the policies that currently apply to sewage and graywater discharges from cruise ships. This review will form the basis of the framework required to understand the environmental policy-making process.

4.1 International Regulation of Sewage and Graywater Discharges

All cruise ships operating in international waters are subject to international standards and regulations established by the IMO. MARPOL (73/78) sets regulatory standards to prevent the discharge of wastewater in the form of oil, bilge, hazardous waste, sewage and on-board solid waste. The MARPOL Convention is applicable worldwide and consists of six annexes, which outline general regulations and definitions dealing with different types of marine pollution by ships. Annex IV deals primarily with sewage.

Annex IV entered into force on September 27, 2003, over 20 years after the Convention. The Annex applies to ocean-going vessels with a gross tonnage exceeds 400 or which carry more than 15 persons. The Annex requires, among other things, that ships be equipped with working sewage treatment plants or holding equipment for retaining sewage on-board. Annex IV also includes a survey component that outlines the

requirements for authorized surveyors and the issuing of International Sewage Pollution Prevention Certificates.

Regulation 10 of MARPOL Annex IV originally stipulated that contracting parties to the Convention were required to ensure the provision of adequate on-shore facilities for receiving sewage and set out the condition under which sewage could be discharged into the sea (anywhere more than 12 nautical miles from shore). Regulation 10 is the main reason neither Canada nor the United States has ratified the Annex. Regulation 10 states that:

> The Government of each Party to the Convention undertakes to ensure the provision of facilities at ports and terminals for the reception of sewage, without causing undue delay to the ships, adequate to meet the needs of the ships using them.

Some ports of call in Canada and the United States could not ensure that they had adequate facilities for receiving sewage. The IMO has therefore modified Regulation 10 in 2004 so that individual jurisdictions/ports can specify their own requirements for the on-shore reception of sewage, making a wider range of treatment systems acceptable. Australia has since ratified Annex IV, but despite the modification, neither Canada nor the United States has signed Annex IV at the time of writing.

Recognizing that effective management was central to ensuring marine safety and environmental protection, the IMO developed the *International Management Code for the Safe Operation of Ships and for Pollution Protection* (ISM Code). The ISM Code became a requirement for all marine vessels, except bulk carriers, with a gross tonnage exceeding 500. It came into effect in July 1998, and all cruise ships are required to adhere to its guidelines.

The ISM Code requires companies to develop and maintain a Safety Management System (SMS) that will ensure the safety of the crew, passengers, vessels, cargo and the environment. The SMS is designed to help employees become more knowledgeable and more proficient in dealing with their daily work and possible emergencies. The SMS has systematic guidelines for everything involving employee safety, vessel operation and maintenance, the handling of cargo and the prevention of environmental pollution. Under procedures established by the IMO, companies that comply with the ISM Code are issued a Document of Compliance. Vessels owned and operated by these companies are then issued a *Safety Management Certificate* (SMC) to be displayed on the vessel. Ships that have no proof of an SMC could be denied insurance coverage or entry into the world's major seaports.

The ISM Code provides specific guidelines for companies to follow in developing an effective SMS, including:

- A safety and environmental protection policy;
- Instructions and procedures for ensuring safe vessel operation and environmental protection in compliance with relevant international, flag state, and domestic law;
- Defined levels of authority and lines of communication between and among shipboard and shoreline personnel;
- Procedures for reporting accidents and non-conformities;
- Emergency preparedness and response procedures; and
- Internal audit and management review procedures.

The ISM Code also requires that individual companies designate a shore-side person (or persons) to be present in every port. This designated person has direct access to the

highest level of management in the company and is responsible for monitoring the safety and pollution-prevention aspects of each ship in the company's fleet. The designated person also ensures that adequate resources and shore-based support are available as needed.

According to SOLAS Chapter IX, certifying and enforcing SMS is the responsibility of the country in which the ship is registered, also known as the ship's flag state. Internationally, passenger ships must also meet the requirements of their classification society. Classification societies are private, third-party organizations whose main function is to inspect ships at regular intervals to ensure that their seaworthiness, structure and machinery are being maintained as required by the classification societies' rules. Classification societies may also inspect cruise ships for compliance with international safety regulations, including SOLAS and MARPOL. Major classification societies include the American Bureau of Shipping, based in the United States; Lloyd's Register of Shipping, based in the United Kingdom; Det Norske Veritas (DNV), of Norway; Bureau Veritas, of France; and Registro Italiano Navale Group, based in Italy. Lloyd's Register is the premier classification society for passenger ships, currently classifying over 45% of the world's passenger fleet.

Classification societies can also provide certain cruise ships with "green certification" or require compliance with the ISO 14001 series of environmental management systems, and have introduced additional programs to support environmentally responsible ship operation. For instance, DNV has introduced two new voluntary class notations to specify the environmental requirements a vessel must satisfy during construction and throughout its operational life: 'Clean' and 'Clean Design'.

'Clean' is a class notation for deep-sea cargo ships, and 'Clean Design' is a class notation for cruise ships, passenger ferries and short-sea shipping which included specific emissions limits for air pollution and ballast and bilge water. DNV has also introduced Nauticus SEAS, a new ship environmental accounting system that tracks energy, fuel and other resources consumed and pollutants (including sewage) that are produced.

4.2 Voluntary Regulation by Cruise Ships and Membership Alliances

Cruise lines and their associations, including the ICCL, NWCA and CLIA, have their own set of voluntary environmental policies and regulations that usually match or exceed federal standards in Australia, Canada and the United States.

Table 11: International Cruise Ship Industry Associations and their Member Lines

Member Line	Association Memberships		
	Cruise Lines International Association	International Council of Cruise Lines	North West CruiseShip Association
Carnival Cruise Lines	✓	✓	✓
Celebrity Cruises	✓	✓	✓
Costa Cruise Lines N.V.	✓	✓	×
Crystal Cruises	✓	✓	✓
Cunard Line	✓	✓	×
Disney Cruise Line	✓	✓	×
Holland America Line	✓	✓	✓
MSC Cruises	✓	×	×
Norwegian Coastal Voyage Inc.	✓	×	×
NCL America	×	✓	×

Member Line	Association Memberships		
	Cruise Lines International Association	International Council of Cruise Lines	North West CruiseShip Association
Norwegian Cruise Lines	✓	✓	✓
Oceania Cruises	✓	×	×
Orient Lines	✓	×	×
Princess Cruise Lines	✓	✓	✓
Radisson Seven Seas Cruises	✓	✓	✓
Royal Caribbean International	✓	✓	✓
Seabourn Cruise Lines	✓	✓	×
Silversea Cruises	✓	✓	✓
Windstar Cruises	✓	✓	×

ICCL's members account for two-thirds of the world's cruise ships, less than 5% of all passenger ships and only 0.2% of the world's trading fleet (Center for Environmental Leadership in Business, 2002). The majority of the large cruise vessels travelling to Australia, Canada, and the United States belong to ICCL. CLIA has more member lines in its association but focuses primarily on marketing and training advice for cruise corporations. NWCA serves cruise lines operating in the Pacific Northwest, Canada, Alaska and Hawaii.

Cruise lines belonging to ICCL and NWCA adopted the following environmental practices with regard to sewage and graywater discharges in January 2004:

- No discharge of blackwater in port;
- No discharge of graywater in port;
- Discharges of treated blackwater and graywater allowed when vessels are more than 4 nautical miles from the port of call and are proceeding at a speed of 6 knots or faster; and
- No discharges when a cruise vessel is within 1 nautical mile of any surrounding shore or restricted dumping locations as established by federal regulations.

Through the IMO, ICCL also developed uniform international standards that apply to vessels engaged in international commerce. These standards were introduced in July 2001. All cruise ships belonging to ICCL are required to use one or more of the practices and procedures in the new regulations when managing shipboard waste. These practices and procedures cover high-volume waste including garbage, blackwater, graywater, oily residues and bilge water and hazardous waste produced on board such as dry cleaning fluid, film processing chemicals, or biomedical wastes. Violations of ICCL standards, depending on the circumstances, can be considered violations of the ISM Code and are enforced by the association. All the major cruise companies in the North Pacific market belong to ICCL, and many of these same ships also operate in Australia during the North American off-season.

4.3 The Federal Landscape for Ocean and Cruise Ship Policy

The federal governments in Australia, Canada and the United States have assigned federal responsibilities for oceans in similar ways. All countries have recently

formulated and adopted either national oceans acts, or policies or both and their implementation and enforcement have met with similar challenges.

Australia's institutional framework for, and approach to, oceans and coastal areas environmental policy-making appears to be one of the most advanced in the world. Despite this, the country faces many challenges. The Australian government has taken the lead on oceans and coastal issues, having received many directives from its Cabinet (Juda, 2003). Australia's 1998 *Oceans Policy* used a consultative process to create an integrated framework involving numerous institutional changes. However, it was never incorporated as an inter-departmental initiative because many agencies were reluctant to shift from sectoral management decisions to integrated ecosystem-based approaches (Juda, 2003). State acceptance of this approach is essential for oceans policies to be developed and implemented effectively. Since most states strongly resist yielding authority to the federal level, this approach is difficult to implement. In the meantime, environmental standards vary considerably among states. For example, Australia's *Port Reform and National Plan* (1998) notes that New South Wales implements strict environmental standards through its ports systems, but Tasmania's economic constraints reduce its capacity to deal with environmental issues.

Canada's *Oceans Act* (1997) outlines the areas of focus required to advance ocean policy, coupled with directions for the future. Although its impact on oceans protection looked promising, it lacked teeth, and its implementation has already proven disappointing. Criticisms of the *Oceans Act* include the fragmentation of authority within the federal government, as well as lack of co-ordination among federal agencies and between federal and provincial governments (Juda, 2003). It is unclear which department

is responsible for policies on and management of oceans and coastal uses, and institutional change will be required to settle the question. For example, although it is clear that Fisheries and Oceans Canada has a mandate to regulate oceans uses, Transport Canada, Parks Canada and Environment Canada also have mandates to regulate ocean and coastal uses including shipping, aquaculture, tourism and marine protected areas. In the meantime, regulations governing related issues such as wastewater discharge from cruise vessels remain lenient and arguably inadequate. Instead, policy issues on oceans and coastal areas are kept alive largely because of the pressure on the federal government from strong ENGOs.

The 2000 United States *Oceans Act* called for the establishment of the Commission on Oceans Policy to develop recommendations and prepare a comprehensive national policy on oceans. After an extensive consultative process with the public and at the federal and state levels, a report was prepared outlining the reforms required to maintain a sustainable oceans environment (U.S. Ocean Commission on Ocean Policy 2004). The 2004 report, *An Oceans Blueprint for the 21st Century*, called for a national oceans policy framework and the creation of the National Oceans Council, which would have members from all federal departments and agencies with ocean and coastal issues in their mandates. In the United States, 11 of 15 cabinet level departments have oceans and coastal interests. The United States faces similar problems to Canada in finding a way to work horizontally between these departments and agencies at the federal level. The National Oceans Council was the proposed solution, but was never established (U.S. Ocean Commission on Ocean Policy 2004). Despite the concerted effort that went into the 2004 Report, there has been no substantial progress in bringing forward a

national oceans policy. The 2007 *U.S. Ocean Policy Report Card*, designed to inform policy-makers and the public of oceans challenges and opportunities going forward, commented on the impeded progress of a US oceans policy by stating:

> Unfortunately, stagnant funding remains the major constraint to making substantial progress in addressing the problems facing our oceans and coasts...Despite a continuing dialogue regarding funding needs, the flat budgets endured by most federal ocean and coastal programs over the past four years is at the core of the slow pace of national ocean policy reform (Joint Ocean Commission Initiative, 2007).

As a result, oceans policies remain sector-based instead of following an integrated management approach (Juda, 2003). Therefore, it remains unclear who is responsible for regulating wastewater discharges from cruise ships in American waters and despite the strict regulation of the cruise ship industry in Alaska, U.S. policies for sewage and graywater remain inadequate. There seems to be a preference in the United State to use industry self-regulation and state issued MOUs when dealing with cruise ship wastewaters instead of reorganizing for institutional change and altering existing policy.

4.4 Australia's Regulatory Environment

Australian environmental laws are based on various international laws. For sewage and environmental protection from dumping, the Australian governments regulations are based on the *Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter* (commonly called the *London Convention),* which aims to prevent pollution that may harm human health or marine life, damage infrastructure or interfere with other legitimate uses of the sea. A protocol to the *London Convention* was adopted in 1996, and the Australian *Environment Protection (Sea Dumping) Act (1981)* implements the 1996 Protocol in Australian national waters. Using the London

Convention's definition of dumping as the deliberate discharge at sea of waste from vessels and man-made structures, the *Environment Protection Act* prohibits all dumping from vessels within Australian waters unless permission has been granted in the form of a permit. Australian waters excluded inland waters and waters falling under the jurisdiction of a state or the Northern Territory. Sewage sludge may be legally dumped at sea if a permit is obtained. Australia also ratified Annex IV of MARPOL in May 2004, which regulates the discharging of sewage. Australia thus requires that cruise vessels have a working MSD or a holding tank adequate for storing the ship's sewage. Annex IV also requires that treated sewage be discharged between 3 and 12 nautical miles off shore and that the ship be travelling at a speed of at least 6 knots.

The legislative approach to marine pollution in Australia is not uniform, however, as individual states possess the power to regulate their coastal and inland waters in different ways. Some states, including New South Wales, take strong, proactive approaches, while others, such as Tasmania, are more reactive. Many of the differences among states in the regulatory requirements for wastewater from cruise ships resulted from the privatization of the ports in 1998. During this process, New South Wales embraced environmental obligations in its corporatisation legislation, but Victoria and Tasmania did not (Port Reform and the National Plan, 1998: 7).

4.4.1 Sydney, New South Wales

Sydney is the largest city in Australia, with over four million residents, and it has the largest cruise industry in the country, receiving 78 port calls in the 2002-2003 season. Sydney currently has both a domestic and an international cruise ship market; Princess Cruise Lines internationally and P&O Orient domestically are its most frequent visitors.

Most of Sydney's regulations for sewage and graywater derive from state legislation. New South Wales included pollution response for oil as well as other wastewaters in its licensing conditions for the corporatised ports. Existing monitoring and maintenance programs for pollution response remained unchanged when New South Wales ports were corporatised.

The principal marine pollution act in New South Wales is the *Marine Pollution Act 1987 NSW (MPA)*, which assigns many of the environmental requirements for pollution prevention. These responsibilities have been delegated to Sydney Ports, but are subject to the *Ports Corporatisation and Waterways Management Act 1995 (NSW) (PCAWMA)*. Under this Act, the Minister for Ports and Waterways has general responsibility for marine safety, including protection of the environment in connection with the use of vessels in state waters. New South Wales has adopted a licensing system for each port, which includes port safety provisions that govern the management of environmental issues. PCAWMA also created the Waterways Authority as a statutory body representing the Crown.

There is a wide range of other environmental legislation in New South Wales (NSW). *The Protections of the Environment Operations Act 1997 (NSW) (POTEOA)* is the principal environmental protection act in the state. It prohibits polluting any waters and makes the Environmental Protection Authority the appropriate regulatory authority for the Act. Sydney Harbour is a no-dumping zone for any type of wastewater, including sewage and graywater.

4.4.2 Hobart, Tasmania

Hobart is the largest city in Australia's southernmost state, Tasmania, which is situated off the mainland. It is the hub of the Tasmanian cruise ship industry, has the third deepest natural port in the world and a continuous flow of water. A record high 28 large cruise ships visited Hobart in the 2002-2003 season.

Cruise Tasmania, composed of Hobart Ports Corporation, Tourism Tasmania and the Marine Board, is the coordinating body for the cruise ship industry in Hobart, and focuses mainly on marketing and promotion. When Australian ports were corporatised in 1998, Tasmania decided to adopt a commercial approach to the management of its port. Subsequent Tasmanian legislation did not require any pollution response from ships entering its ports or travelling its coastline. Hobart Ports also experienced deep cuts in personnel when it was corporatised, further diminishing its capacity to deal with marine pollution (Port Reform and the National Plan, 1998).

Principal responsibility for cruise ship operations in Hobart therefore rests with shipping agents, who are responsible for organizing and facilitating customs, quarantines, provisioning, pilotage, and the offloading of garbage and sewage. Although shipping agents are required to organize and facilitate these activities, they are also subject to varying degrees of legislation and regulation by international, Australian and state laws. The major shipping agents in Hobart are Beaufort Shipping and Barwil Shipping.

The cruise ship industry in Hobart follows MARPOL's standards and Annexes. Cruise ships rarely pump sewage ashore because visits in Hobart are relatively short: most cruise vessels arrive in Hobart in the morning and leave before nightfall (pers. comm., Hobart Ports, March 6, 2003). Instead, sewage produced during this short period

is held on board and discharged once ships are outside the port limit. The Harbour Master for the Hobart Ports Corporation stated he is confident that sewage is not dumped in the harbour, but no agreements or state laws required that sewage be held on-board in 2003 (pers. comm., Hobart Ports, March 6, 2003). Furthermore, Hobart Ports did not monitor the activity of cruise ships other than through examinations of ships' discharge logs to confirm that no discharges had occurred. The policy actors in the state government, Hobart Ports and a local ENGO all stated that they were confident that cruise vessels act responsibly while in port (pers. comm., Hobart Ports, March 2, 2003; pers. comm., Marine and Safety Tasmania, February 7, 2003; pers. comm., Tasmanian Conservation Trust, January 23, 2003). In 2003 Hobart Ports completed a new waste collection system, at the Domain Shipyards, where treated water can be offloaded and directed to the sewer system.

4.5 Canada's Regulatory Environment

Wastewater discharges from cruise ships are regulated in Canada by several different acts, almost all at the federal level. First, the Transport Canada *Canada Shipping Act* prohibits dumping sewage in specific bays and inlets throughout Canada. Related regulations, including the *Pleasure Craft Sewage Pollution Prevention Regulations* and *Non-Pleasure Craft Sewage Pollution Prevention Regulations* made pursuant to the Canada Shipping Act, have each identified a series of no-dumping zones. Second, most other waste streams from cruise ships that would be categorized as special or hazardous materials are regulated by the *Canadian Environmental Protection Act* and the *Transportation of Dangerous Goods Act*, although these acts do not specifically target wastewater from cruise ships. Third, sewage or graywater that contains hazardous

materials or regulated chemicals is legislated in terms of its contents. Unlike the United States and Australia, Canada does not require vessels to possess Marine Sanitation Devices (MSDs). As a result, sewage and graywater can be discharged anywhere in Canadian waters with the exception of the no-discharge zones. Additional federal acts, including the *Oceans Act* and *Fisheries Act,* could be used to guide or regulate the cruise ship industry but have not been used for that purpose to date.

The Canadian Coast Guard is responsible for protecting the marine environment by monitoring and cleaning up spills. One of the most effective ways to detect marine pollution is from the air. The National Aerial Surveillance Program uses fixed-wing aircraft fitted with sensing and reporting equipment to identify pollution incidents and gather evidence to prosecute polluters (pers. comm., Fisheries and Oceans Canada, September 8, 2003). Despite the National Aerial Surveillance Program, no cruise ship has ever been caught discharging waste illegally in Canadian waters.

4.5.1 Vancouver, British Columbia

Vancouver is the most popular cruise ship destination in Canada and received 304 port calls in the 2003 season. The cruise ship industry in Vancouver relies primarily on the Alaskan cruise market, which began in the 1950s and became increasingly popular in the 1980s. Vancouver has always been a popular destination in the Alaskan cruise ship industry, in part because of the *US Passenger Services Act,* which regulates the transport of passengers and cargo to and from U.S. waters. The Act stipulates that a ship cannot transport passengers between two U.S. ports unless the ship is owned by U.S. citizens, built in U.S. shipyards and crewed by U.S. citizens. The *US Jones Act* subjects cargo transport between two U.S. ports to the same conditions.

The implication of the *US Passenger Services Act* for the Alaskan cruise industry is that many vessels leaving the mainland of the United States for Alaska are required to stop in a foreign port. Vancouver's port has become a strategic cruise ship destination because of its proximity to the United States, and is considered a convenient home port for many cruise ships. The Port of Vancouver currently receives more cruise ship traffic and is the home port for more cruise vessels than its rival port of Seattle, Washington in the United States.

The Port of Vancouver sets regulations for cruise ships entering and berthing in its harbour. In 2000, Operations and Harbour Master staff boarded more than 98% of all deep-sea vessels that called on the Port of Vancouver, sealing bilge valves, providing hold-washing inspections, and holding pre-bunkering inspections to reduce the potential for accidental discharges of pollutants (pers. comm., Port Vancouver, October 7, 2003). The Port of Vancouver currently has no regulations for sewage and graywater discharges, relying instead on voluntary codes of conduct established by the cruise lines and their member associations.

4.5.2 Prince Rupert, British Columbia

Prince Rupert, British Columbia, is a city of 15,000 residents and is the last destination for cruise ships on the British Columbian coast before they cross the border into Alaska. Prince Rupert is located midway between Vancouver and Skagway, Alaska and is accessible by both land and rail. Tourism has always contributed to the Prince Rupert economy, with the city serving as either as a primary ferry destination or as an occasional stop for large cruise vessels.

Prince Rupert decided to promote the cruise industry as part of a recent redevelopment strategy to diversify its struggling economy. Historically a fishing and logging town, Prince Rupert has suffered since the city's pulp mill closed in 2001. The construction of a new cruise ship dock was completed in the summer of 2004 and signifies the beginning of a cruise industry in Prince Rupert that is expected to spur economic development and create new business opportunities for local residents. Almost 50 cruise ship arrivals were expected in the 2005 season.

As was previously noted, outside the designated no-discharge zones the federal and provincial governments have no specific regulation for the discharge of sewage in ports. Prince Rupert has not developed any port discharge regulations of its own. However, Section 1.8.2 of its *Policy and Procedures for Prince Rupert Harbour* states that "no person shall within the harbour drain, discharge or deposit in the water any pollutant that could cause damage to vessels or property, cause a nuisance or endanger persons, property or the environment." Although this regulation is vague, it could be applied to sewage and graywater discharges in the future.

4.6 The United States Regulatory Environment

In the United States, the *Clean Water Act* is the appropriate law for regulating wastewater emissions from cruise ships, as it prohibits any discharge of any pollutant from a point source into United States waters unless a permit has been obtained. Section 402 of the Act establishes the National Pollutants Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources into U.S. waters (Environment Hawai'i, 2003). However, although the *Clean Water Act* applies to all point-source pollution, including vessels, a permit is not required for sewage from ships, effluent from

properly functioning marine engines, and laundry, shower, and galley sink waste. Section 312 of the Act addresses this gap by prohibiting the dumping of raw sewage into the navigable waters of the United States within three nautical miles of shore. Outside the three-mile limit, raw sewage can be legally dumped into the ocean.

Graywater is also exempt from requiring an NPDES permit and can currently be discharged anywhere but Alaska or the Great Lakes. U.S. law also allows graywater to be discharged from ships in almost all locations, including anywhere from mid-ocean to alongside piers. However, the cruise lines have opted to collect and hold graywater for discharge until the ship is under way and operating at a speed of six or more knots following ICCL's policy which states that all discharges must occur at least 4 nautical miles from land.

All operating commercial or recreational vessels with toilets are currently required by the United States to have working MSDs. Section 312 of the *Clean Water Act* establishes effluent standards for MSDs and the Environmental Protection Agency (EPA) is responsible for establishing and developing the performance standards for MSDs. The United States Coast Guard has primary enforcement authority and is mandated to monitor compliance by, conduct surveillance of, and inspect cruise ships. However, it has been criticized for its lack of emphasis on and ability to address environmental issues.

The Coast Guard's ability to detect and resolve violations is constrained by the narrow scope of its routine inspections, a significant reduction in aircraft surveillance for marine pollution purposes, and a breakdown of the process for identifying and resolving alleged violations that are referred to flag states (General Accounting Office of the

United States, 2000). In most locations with the exception of Alaska, the United States Coast Guard examines cruise ships when they first enter United States waters, then quarterly and annually thereafter (Herz and Davis, 2002). Most cruise ships that enter United States waters on route to Alaska originated their voyage in Canada or the United States and their entering is therefore not considered as a first entry.

4.6.1 Juneau, Alaska

Juneau, the capital of Alaska, received 547 port calls in 2003 and is the most popular cruise destination in the North Pacific. It is therefore not surprising that the city of Juneau and state of Alaska have some of the strictest cruise ship specific regulations for sewage and graywater. Both the federal and state governments have established regulations on discharging sewage in port and state waters. Currently no local government regulations specific to Juneau exist to regulate the cruise ship industry. Federal law, passed as *Title XIV- Certain Alaskan Cruise Ship Operations* of the Miscellaneous Appropriations bill (H.R. 466) in the *Consolidation Appropriations Act of 2001* (P.L. 106-554), applies to large commercial vessels (over 500 passengers) operating in Alaskan waters and sets effluent standards for sewage. Title IV closes the so-called doughnut holes — areas of water in the Inside Passage three nautical miles away from the mainland but also three nautical miles away from any island and therefore outside federal jurisdiction — where large volumes of discharges often took place. The effluent standards set by the federal government for sewage matched the state regulations implemented later in 2001.

Alaska also passed a state law (House Bill 260) in 2001 regulating cruise ships on environmental grounds. The state law (AS 46.03.460-46.03.490) applies to small and

large vessels with over 50 overnight passengers and sets effluent standards for both sewage and graywater where federal law had only sets limits for sewage. The effluent standards for sewage and graywater require that the limits not exceed 150 milligrams per litre for total suspended solids and 200 fecal coliform colonies per 100 millilitres for vessels that are travelling at a speed of 6 knots or more and are at least 1 nautical mile from shore. The overlap between federal and state laws has given cruise ships three options for discharging sewage and graywater in Alaskan waters.

- Cruise ships may hold their wastewaters and discharge them only once they are outside Alaskan waters (3 nautical miles). Wastewater discharged at this distance is excluded from the sampling regime and effluent standards.
- The cruise ship can discharge when it is at least 1 nautical mile from shore and travelling at 6 knots or more. To exercise this option, the wastewater must meet state effluent standards.
- The cruise ship can install advanced wastewater treatment systems that meet the stringent requirements that enable them to be certified by the United States Coast Guard for continuous discharge.

The state law also implemented a compliance program for the testing, sampling and reporting of wastewater and air emission, paid for by the cruise corporations.

4.6.2 Seattle, Washington

Seattle is a relative newcomer to the Alaskan cruise ship market, but it is one of the fastest growing players in that market. Seattle received 110 port calls in the 2003 season. The Washington Department of Ecology developed an MOU in 2004 to prohibit

discharges of sewage and graywater in the Strait of Juan de Fuca. More detail on Seattle's MOU will be presented in Chapter 5. At present, however, no state-level legislation exists. Instead, as a matter of ICCL policy, the cruise lines discharge blackwater only after leaving Puget Sound and only once they are more than 4 nautical miles from shore and travelling at six knots or faster.

The Port of Seattle currently prohibits any wastewater discharge at dock. Working with the state Department of Ecology and using a Best Management Practices (BMP) framework, the Port tries to ensure that cruise lines understand all of the state's environmental laws and regulations. The Port distributes the BMPs to all cruise lines using Port of Seattle facilities.

The United States Coast Guard has jurisdiction over cruise ship discharges. In Washington State, the Department of Ecology also enforces general water-quality regulations, which require that fecal coliform counts be no more than 14 colonies per 100 millilitres. Graywater on the cruise ships that visit Seattle is usually mixed with treated sewage, and the state defers to ICCL claims that no discharges of graywater occur in port. No state or federal regulations for graywater exist in Seattle or the state of Washington at this time.

4.7 Conclusion

This review of regulations governing wastewater discharges from cruise ships demonstrates how these regulations differ in the six sites chosen for this study. Chapters 5 and 6 will seek to determine *why* these differences occur by examining government and corporate responses to environmentalism and the broader policy community.

CHAPTER 5: LOCAL POLITICS AND GOVERNMENT RESPONSES TO THE INFLUENCES OF THE BROADER POLICY COMMUNITY

The principles of sustainable development combined with local and wider influences such as public awareness, focusing events and the knowledge of other specific responses are central to the analysis of the environmental policy-making process. Yet these variables, which influence activity in policy communities, are not the only factors guiding government decisions about environmental policies. These decisions are often impacted by specific motivations and perceptions either within government departments or agencies, or in their interactions with other institutions.

It was shown in Chapter 4 that environmental policies legislating the disposal of wastewaters in the cruise industry differ significantly among the six sites selected for this study. This finding raises important questions concerning the reasons for such diversity in the legislation on cruise ship wastewaters and the local and wider influences which contributed to the specific environmental policy outcomes for the location. This chapter addresses these questions by examining environmental decision-making at various levels of government and the perceptions and motivations that led to each decision. Central to the examination of government decision-making in the environmental policy-making process is the role of ENGOs and local citizens in pressuring governmental decision-makers to balance priorities between the economy, the environment and society. The combination of the various levels of government in a location, the perceptions and

motivations within the institutions and the pressure from ENGOs and local citizens creates interactions within the policy community that will be referred to in this chapter as local politics. The term describes the political maneuvering and dialogue that takes place between the institutions in a policy community about the 'right' policy solution for a particular time and place. Understanding the environmental policy-making process requires an acknowledgement that local politics will influence government policy responses. Corporations are also strongly affected by local politics, and Chapter 6 will examine how they respond and adapt their corporate policies to account both for local politics and for multiple local policy communities.

5.1 Local Politics and the Effect of Local and Wider Influences on the Environmental Policy-Making Process

An examination of local politics shows that government responses are based on discussions about the 'right' solution for a situation given the dynamics of the policy community at a particular time. The evolution of wastewater policies in the sites chosen for this study will make it abundantly clear that several distinct variables affect the decisions governments make about what are the 'right' responses.

Some local and wider influences which affected the interactions in a local policy community are listed in Figure 2 (Chapter 2, page 49). They include environmental awareness, focusing events and the responses of other locations to events. Each of these influences will be examined in this chapter, as well as, the effects they had on the policy community and the resulting policy responses. The cases of Juneau, Sydney, Vancouver and Seattle will demonstrate the ways in which local environmental awareness and focusing events can drive the environmental policy-making process and how a focusing

event can be a trigger in generating activity in policy communities. Comparing the four cases highlights that, although similar local and wider influences exist in many of the locations, the resulting policy responses continually differ based on local politics and the balancing of local politics with other local characteristics to achieve sustainable development.

The cases of Hobart and Prince Rupert will be examined in the following section. Both cities were less focused on environmental awareness and cruise ship environmental policies than on economic development and diversification, and demonstrate how the trade-offs between sustainable development and the other interests can affect the political decisions in the environmental policy-making process.

5.1.1 Local Politics, Awareness and Focusing Events

5.1.1.1 Background to Juneau's Cruise Ship Industry

The environmental policies in Juneau, Alaska that regulate the cruise ship industry's activities have generated an incredible amount of attention. It will be shown that, in Juneau, both environmental awareness and focusing events were prominent in the environmental policy-making process and mutually reinforcing. The presence of these local influences created activity within Juneau's policy community, but the resulting policy-making activities were further impacted by the perceptions of the various levels of government and their motivations to advance their own agendas while ensuring a degree of sustainability.

Cruise ship visits to Alaska represent 7 to 8 percent of the world market. In the 2005 season, 920,000 passengers visited Alaska on a cruise ship. Juneau is the largest

Alaskan port destination and receives approximately U.S. $30 million per season in tax credits from the cruise ship industry. It is, therefore, considered to be a major direct and indirect economic contributor to the city but the policy community in Juneau has taken deliberate stops to balance the cruise ship industry's impacts with environmental and social priorities (pers. comm., ADEC, July 15, 2003).

Juneau's local cruise ship policy community consists of both federal and state representatives from various departments and agencies, a variety of ENGOs including the Earth Island Institute and Oceana, local citizens and cruise line representatives. Other institutions located outside of Juneau also play a significant role in the policy community including some cruise ship member associations such as the NWCA and ICCL.

Since 2000, both the federal and state governments have enacted legislation forbidding the discharge of sewage in ports and in Alaskan state waters, making Alaska the first and only U.S. state to have done so. Many factors contributed to the introduction of this legislation in Alaska, including the expansion of the cruise industry, increased awareness of the environmental effects of ships on the marine environment and the deliberate discharging of wastewater in state waters by cruise ship companies. These factors were all instrumental in generating activity in Juneau's policy community and triggering government responses. It is impossible, however, to separate these factors from the local politics in Juneau. For example, the state government's responses were influenced by the relationship it had with the federal government, the relationship it had with other institutions and trade-offs it made regarding other economic activities. Simply put, Juneau's policy evolution was shaped and determined by awareness, focusing events, and political decisions that were place specific.

5.1.1.2 Juneau's Initial Increase in Awareness of Sewage and Graywater Emissions

Juneau became an extremely popular cruise ship destination in the 1980s and 1990s. As the city became crowded with tourists, souvenir shops and tour buses, Juneau's policy community began to pay more attention to the cruise industry. The economic benefits associated with the industry were tempered by social disruptions, as thousands of tourists packed downtown Juneau and caused some to question the value of having so many cruise ships visiting Juneau (pers. comm., Earth Island Institute, July 18, 2003). A Royal Caribbean Cruise Line representative noted that "Juneau is very vocal socially and many citizens did not like the rate of growth. Other communities with more dependence on the cruise industry were less vocal" (pers. comm., Royal Caribbean Cruise Lines, July 16, 2003).

Over time, the number of cruise ship visits to Juneau increased awareness in the city of the policies governing cruise ship companies (pers. comm., Earth Island Institute, July 18, 2003). In the mid-1990s, a representative from the Earth Island Institute decided that the major growth in the cruise ship industry in Juneau required more examination. He quickly discovered that, although legislation existed to regulate oil and bilge water, sewage and graywater remained largely under-regulated. The representative reportedly asked the United States Environmental Protection Agency (USEPA) which pollution permits dealt specifically with sewage and was advised that the regulations of the 1972 *Clean Water Act* exempted cruise ships from needing such permits (pers. comm., Earth Island Institute, July 18, 2003).

The exemption of cruise ships from the pollution permit requirement raised concerns about environmental policies with some local citizens and ENGOs, who

continued to pressure the government for accountable and transparent regulation (pers. comm., Oceana, July 17, 2003). The pressure took the form of media campaigns exposing cruise ships' environmental indiscretions, as well as small protests against cruise ships when they reached port (pers. comm., Earth Island Institute, July 18, 2003).

Protests and demonstrations were held in Haines, Skagway and Juneau. The local Juneau paper, the *Juneau Empire*, began to serve as a logbook for the environmental watchdogs who documented every discharge, air emission and discolouration in the water that could be related to cruise ships (pers. comm., ADEC, July 15, 2003). According to the Earth Island Institute, the goal was to pressure the governor of Alaska to enact sewage and graywater legislation.

The initial reaction of ENGOs to the cruise ship industry was not to propose new regulations but to press for more information and accountability from the government in how it regulates the cruise ship industry. The ENGOs asserted themselves in Juneau's cruise ship policy community with demands for appropriate policy responses. It was not until the late 1990s that significant focusing events changed the manner and the pace of government responses.

5.1.1.3 Focusing Events in Juneau Heighten Political Activity

In 1998, Royal Caribbean Cruise Lines (RCCL) pleaded guilty to 21 felony counts of purposely dumping hazardous wastes from its photo shops, dry cleaning facilities and bilge water tanks into U.S. waters, including Alaska's Inside Passage. This event is considered the catalyst for many changes in Juneau's environmental awareness and the policy changes that followed. Table 12 documents how individuals in the various institutions of the policy community viewed the allegations and fines against RCCL.

Table 12: Interview Opinions on the RCCL Allegations and Fines

INTERVIEWEE	DATE	RESPONSE TO INTERVIEW QUESTION
Royal Caribbean Cruise Lines Representative	July 16, 2003	"The trigger that started the regulation overload was the criminal allegations [against RCCL] from the mid 1990s."
Environmental Protection Agency, Alaska representative	July 16, 2003	"The instigation for the Bills started with the criminal allegations of the mid 1990s."
United States Coast Guard representative	July 15, 2003	"As seen with the RCCL example, cruise ships have been caught with falsified reports and installed bypass hoses in the past. They are responsible for their own political pressure."
Earth Island Institute representative	July 18, 2003	"The RCCL incident mobilized Alaskan NGOs to challenge cruise ships on environmental grounds."
Alaska State Representative	July 17, 2003	"RCCL's criminal charges could not be ignored by the citizens of Juneau. The fact that they retrofit all their ships to deliberately dump waste was shocking."

RCCL agreed to pay a US $18 million fine but was accused of additional discharges the following year (Klein, 2002). In 1999, Alaska filed suit against RCCL for illegally dumping oil and hazardous waste into state waters, resulting in another RCCL payment of US $6.5 million in 2000. The dumping attracted the attention of local citizens, who wanted to know exactly what cruise ships were discharging, where they were discharging, and what legislation existed to regulate the industry (pers. comm., ADEC, July 15, 2003). It was at this time that representatives from the Earth Island Institute used the media to remind the citizens of Juneau about the lack of regulation governing the emission of sewage and graywater from cruise ship (pers. comm., ADEC, July 15, 2003).

The increased local pressure led to the Alaskan Cruise Ship Initiative (ACSI), which was developed in 1999. ADEC enacted the initiative with the co-operation of the

United States Coast Guard, the USEPA, industry representatives and concerned local citizens. ACSI was essentially a system maintenance response: rather than demand reform, it recommended carrying out a study to determine the scale and scope of the perceived problem. By committing to the study, the state responded to negative press and public sentiments in Alaska without actually agreeing to take any regulatory action.

ACSI carried out a series of tests in 2000, including wastewater monitoring. Representatives from the initiative boarded 21 large cruise ships twice in the 2000 season to test overboard samples against the common parameters used to assess the level of sewage treatment. These tests showed the MSDs being used on ships were not operating up to MSD standards, and test results for sewage and graywater discharges were alarmingly high (ACSI, 2001). Almost all of the ships tested had effluent levels of fecal coliform above the legal standard in the City of Juneau (Klein, 2002). Nine of the graywater samples tested had fecal coliform levels that were 50,000 times the legal limit. Further tests showed that the bacteria and fecal coliform counts in graywater were as bad as, if not worse than, those found in sewage (ACSI, 2001). These results constituted another focusing event in Juneau and initiated further activity in the policy community.

5.1.1.4 The Effect of Government Perceptions and Motivations

ENGOs and local citizens were outraged by the test results and demanded immediate action through letters to the *Juneau Empire* and public meetings. By the summer of 2001, wastewater discharges in Juneau were regulated by new legislation at both the federal and state levels. *Title XIV- Certain Alaskan Cruise Ship Operations* applies to large commercial vessels at the federal level, and a state bill *Commercial Passenger*

Vessel Environmental Compliance Program now regulates the environmental impact of small and large cruise ships.

The responses of the federal and state governments were neither straightforward nor without controversy, and resulted in many different perceptions regarding motivations for the policy changes. Some contended that the new cruise ship legislation was based purely on concern for the environment since the potential damage to Alaska's fragile and unique environment was too great to ignore. A representative from NWCA expressed this view, noting that "government officials in Alaska are very aware that their pristine environment is their competitive advantage; Of course they are going to make moves to protect it" (pers. comm., NWCA, October 15, 2003). Others viewed the speed of the legislative changes as suspicious, and many questioned the political motivations of the federal and state governments. A representative of Princess Cruise Lines remarked that "it seemed odd that Alaska's environmental opposition and scientific study would result in both a federal and state bill where the federal bill only applied to Alaska and no other state" (pers. comm., Princess Cruise Lines, June 18, 2003).

Such speculation is consistent with Birkland and Nath's (2001) observation that alternative political motivations can contribute to or hinder policy decisions, depending on the institution's goals or agenda. The local politics that affected the policy-making process and its outcomes in Juneau are best analyzed in terms of the potential motivations of different government institutions within the policy community.

5.1.1.5 Motivations of State and Federal Governments

Before legislation of the cruise ship industry was proposed, there was considerable tension between the federal and state governments. Juneau has often been characterized

as having an independent streak, being somewhat anti-government and defending its autonomy (pers. comm., USEPA, July 16, 2003). The state government acting through ACSI was the first agency to scientifically test wastewater discharges from cruise ships in the United States. The federal government arrived on the scene with a proposal for a cruise ship bill only after the state's wastewater tests were made public (pers. comm., Alaska state representative, July 17, 2003).

ADEC and USEPA representatives have remarked that the federal government introduced its bill simply to flex its political muscles. They suggest that once it was known that the federal government was going to pass a bill on cruise ships which only applied to Alaska, the speed at which both the federal and state bills were passed was actually a reflection of a race between the two levels of government. Furthermore, the race had more to do with determining who had greater authority to regulate Alaskan waters than with protecting those waters (pers. comm., USEPA, July 16, 2003; pers. comm., Princess Cruise Lines, June 18, 2003).

Despite the rush to get the state bill through the legislature, the bill did not pass by the end of the 2001 legislative session. As a result, a special legislative session was held in the summer of 2001 to deal with the cruise ship issue (pers. comm., Alaska state representative, July 17, 2003). ENGOs claimed that the special session was added because of "the recognition of the severity of the environmental damage caused by the cruise industry" (pers. comm., Oceana, July 17, 2003). By contrast, a state government representative viewed the special session "as a political move to pass the state bill as close to the passing of the federal bill as possible and therefore receive the local recognition of having taken action for environmentalism" (pers. comm., Alaska state

representative, July 17, 2003). Regardless of other motivations, the federal and state governments were still perceived to be responding to calls for more environmentalism by their citizens and the local ENGOs.

In the interviews carried out for this dissertation, interviewees were asked whether they believed there were any political motivations for the policy outcomes in Juneau. Table 13 lists the interviewee's answers, which suggest that the introduction of new environmental policies for wastewaters in Juneau were, in fact, the result of a power struggle between the federal and state governments. The most frequently mentioned specific political motivations were those of two specific individuals: Alaska Senator Frank Murkowski and Alaska Governor Tony Knowles. Senator Murkowski's motivations were perceived through the lens of the state/federal debate as well as an effort to achieve his own objectives. Governor Knowles' motivations were perceived to be related to a different debate altogether.

Table 13: Interviewee opinions on external political motivations and State and Federal tensions

INTERVIWEE	DATE	RESPONSE TO INTERVIEW QUESTION
Environmental Protection Agency, Alaska representative	July 16, 2003	"It has not a lot to do with the ships themselves. There have been legislative issues between the federal and the state government for the last 2 to 3 years. This is a critical issue for the state as the ships are foreign and have deep pockets. It is also easier to chase cruise ships than oil tankers." "There is a tension between state and federal governments. Alaska has an independent streak and is very anti-governmental. The state is very defensive about their authorities."
Environmental Protection Agency, Seattle representative	June 25, 2003	"Alaska is very independent and sees itself as very different from the lower 48. They like to set their own legislation."
Alaskan Department of Environmental Conservation representative	July 15, 2003	"The federal government was politically motivated. There was no need for the federal bill. The state bill is broader and includes graywater. Wastewater infractions can be done by the state as ADEC can assess damage and make recommendations. The Coast Guard and EPA can also enforce things in Alaska that they cannot elsewhere, which doesn't make sense."

5.1.1.6 Motivation of Alaska Senator Murkowski

Frank Murkowski was a senator from Alaska at the time the cruse ships bills were passed. A Republican with only marginal links to environmental organizations, Murkowski introduced the federal bill supporting environmental policy change in the cruise ship industry. This prompted many to question his motives; Table 14 presents the responses of a number of interviewees who questioned Murkowski's motivations for introducing the bill.

Table 14: Interviewee opinions on external political motivations and Senator Murkowski

INTERVIEWEE	DATE	RESPONSE TO INTERVIEW QUESTION
Royal Caribbean Cruise Lines Representative	July 16, 2003	"Out of character for Murkowski who has his root in South Eastern Alaska – Ketchikan. He is very aware of South Eastern politics and the resource industries in trouble. Tourism was the panacea and yet he pushed an environmental regulation. It was probably a trade-off for something."
Royal Caribbean Cruise Lines Representative	July 16, 2003	"Murkowski's political philosophy is to use the opportunities to create the crisis."
Earth Island Institute representative	July 18, 2003	"Murkowski put a bill forward and the first version was a farce. It would have made things worse. It was written by the cruise industry. The cruise industry went to Murkowski and said we will write the bill for you and you will look like you are doing what you should. I have since been told by Murkowski's office 'We were snookered by the cruise ship industry'." "Knowles put out a bill to counter Murkowski that actually made fun of him and Murkowski turned around and fought."
Environmental Protection Agency, Seattle representative	June 25, 2003	"The Federal government closed the donut holes for the Inside Passage. Murkowski actually closed the holes – it was out of character."
Alaska Department of Environmental Conservation representative	July 15, 2003	"Murkowski passed the Bill as he knew he would soon be running for Governor and needed wider Alaskan support."
Alaska state representative	July 17, 2003	Murkowski plugged the donut holes which was a big deal. I don't know why – perhaps it was good intentions?"
Oceana representative	July 17, 2003	"Murkowski probably supported the bill as a political move as he knew he was going for Governor."

One theory, suggested by the Earth Island Institute, is that the relationship between the cruise ship industry representatives and Senator Murkowski was too close. A representative of the Earth Island Institute claimed that industry representatives influenced the wording and policies of the federal bill that Murkowski initially

introduced. According to this view, Murkowski sought to pass a bill largely written by the cruise industry and with that industry's interests in mind (pers. comm., Alaska state representative, July 17, 2003). Murkowski was subsequently challenged by local ENGOs, including the Earth Island Institute, to produce a more impartial bill (pers. comm., Alaska state representative, July 17, 2003). As Cohen (2000: 3) has observed:

> Murkowski's first effort was seriously flawed and would likely have made the situation worse. In response to strong criticism from C-SAW [Campaign to Safeguard America's Water] and other NGO's, the EPA, the Department of Justice, and the Governor's office, Murkowksi agreed to rewrite the Bill. By October, the Bill had been almost completely redrafted to offer some meaningful protections for Alaska's waters.

A representative of Princess Cruise Lines noted that "the whole legislation of Alaska was very political and had a lot to do with the upcoming elections" (pers. comm., Princess Cruise Lines, June 18, 2003). This representative suggested that Murkowski supported the second bill on cruise ships only because he was planning to run for governor and knew that cruise ships were a significant issue among his constituents.

5.1.1.7 Motivation of Alaska Governor Knowles

Governor Tony Knowles, a Democrat, was expected to demonstrate concern for the environment, but some individuals still viewed his motives for supporting the cruise ship bill as suspicious. Table 15 presents the views of key institutions in the policy community on Knowles's motivations.

Table 15: Interviewee opinions on external political motivations and Governor Knowles

INTERVIEWEE	DATE	QUOTE
Alaska state representative	July 17, 2003	"Knowles supported the BP Oil Merger and wanted a monopoly. Knowles needed to look more environmentally friendly so he jumped on the cruise ship bandwagon."
Princess Cruise Lines representative	June 18, 2003	"Knowles was under extreme pressure by environmentalists for an oil business deal, not cruise ships, but needed to take a hard line with something."

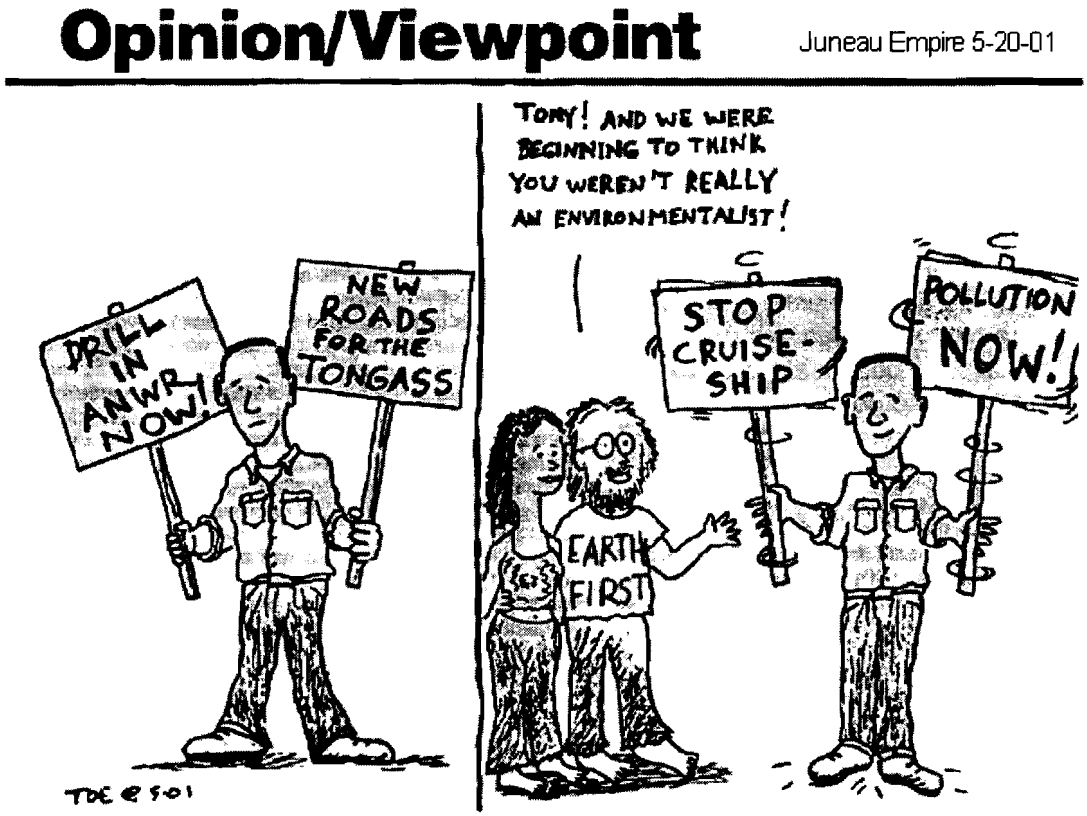
In 2000, before becoming a proponent of environmental legislation for the cruise industry, Knowles supported an oil company merger involving BP Amoco that had the potential for major environmental consequences (pers. comm., Alaska State Representative, July 17, 2003). A year before Alaska enacted its cruise ship legislation, Knowles found himself the subject of considerable environmental criticism. When Knowles received a BP Employee of the Year Award in 2000, Greenpeace climate change campaigner Gary Cook wrote:

> BP Amoco could not have asked for a better supporter. However, long-term environmental interests could not have found a worse advocate. It's time for Governor Knowles and other Alaskan politicians to realize it is not in the long-term interests of its citizens, or the environment, to keep drilling for new sources of oil. (Alaskan Governor receives BP employee of the year award, 2000).

Representatives of the Earth Island Institute and ADEC have expressed their beliefs that Knowles' dedication to environmental issues in the cruise industry was an attempt to divert attention away from his acceptance of the environmental degradation of the oil company merger. Figure 3, reprinted from the June 20, 2001, *Juneau Empire*, represents

the views of those in the policy community who doubted Knowles' commitment to environmental issues.

Figure 3: The Governor's Environmentalism Caricatured



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5.1.1.8 Juneau's Environmental Policy-making Process

The analysis of Juneau's environmental policy-making processes demonstrates that the process and the outcomes are neither straightforward nor simple. Many aspects of local politics are also embedded in a location's decision-making process. For example, the independent nature of Alaska in relation to the "lower 48" is a longstanding political factor that dominates Juneau's policy community and therefore affects any policy decisions, including those that impact the cruise ship industry. Alaska's reliance on oil

and its relationship with oil companies is another longstanding factor, and the trade-off between strict environmental regulation for the cruise ship industry and lax regulation for the oil drilling highlights the political nature of certain responses.

The analysis should not, however, focus on which local motivations were most influential in the policy-making process, nor should it assume that local politics overshadow local and wider environmental influences. Rather, it is the unique combination of all of these influences, motivations and perceptions which results in a given policy outcome. It is important to understand that environmental policy decisions cannot be explained with a simple cause and effect model. If Juneau's environmental policy-making process is examined as an individual case study, it could lead one to conclude that a focusing event, such as the ACSI, is required to kick start local political activity and bring about a policy change. It will be demonstrated through the Seattle experience that focusing events do not always lead to policy change. That being said, the case of Sydney, New South Wales provides supporting evidence to the case that a focusing event is required to result in legislation. When the history of Sydney Harbour is examined, it becomes clear that their current government environmental policies resulted from a focusing event in Sydney that heightened environmental awareness and resulted in strict environmental legislation. The inconsistency in the role focusing events can play in influencing the policy responses of the policy community highlight the importance of local politics and the benefits of using comparative case studies.

5.1.1.9 Focusing Events, Environmental Awareness and Environmental Legislation in Sydney, New South Wales

Organized public concern about the environmental quality of Sydney Harbour was first raised in 1989 in association with Clean Up Sydney Harbour Day. Ian Kiernan, an Australian yacht racer who had encountered many polluted oceans throughout the world during his sailing career had initiated the event, because he was appalled at the level of damage humans were causing in the oceans and wanted to raise awareness in his hometown. In the first year of Clean Up Sydney Harbour Day, more than 40,000 people donated their time and energy to clean up the harbour (Clean Up Australia Online, 2004). An annual Clean up Australia day followed and contributed to a stronger awareness of the need for environmental stewardship of marine environments. The Waterways Authority then assumed responsibility for cleaning up Sydney Harbour as a major environmental initiative (Waterways Authority, 2003). Environmental measures were stressed to the governing institutions, and environmental legislation was introduced in 1990. In co-ordination with the Waterways Authority, Sydney Ports established Sydney Harbour as a no-discharge zone. The legislation was not developed to address the cruise ship industry specifically or any of its activities but applies to all the industries and activities that use the harbour in order to protect the overall state of the harbour.

In the eyes of the public, the current legislation adequately regulates the environment and the current governing institutions are content with their legislation, infrastructure and technology, so there is little to no institutional pressure for change (pers. comm., Barwil Shipping Agency, April 4, 2003; pers. comm., Sydney Ports, April 28, 2003). As a result of Clean Up Sydney Harbour Day, which is considered to be a major focusing event in Sydney, and the subsequent government legislation created in

response to the event, there is no organized ENGO environmental opposition to cruise ships in Sydney. Although significant focusing events in Sydney and Juneau both led to strict legislation, one should not conclude that focusing events are always a causal link to the development of environmental legislation. The cases of Vancouver and Seattle tell different stories.

The local influences in Vancouver and Seattle are most similar to Juneau, including their strong presence of local ENGOs lobbying for wastewater regulations. Most cruise ships that travel to Juneau originate or make a stop in either Seattle or Vancouver. Despite being part of the same voyages, neither city has adopted legislation on cruise ship wastewaters. Seattle has experienced a significant focusing event directly related to the cruise ship industry and Vancouver has not, yet, both cities' governments have opted for industry self-regulation through guidelines and MOUs. The cases of Vancouver and Seattle demonstrate that when the presence or absence of environmental awareness and focusing events are balanced against the principles of sustainable development in a specific location they can result in different responses. These cases highlight the importance of political decisions with regards to sustainable development as well as the benefit of comparative case studies. In this dissertation, case studies are essential in examining processes in order to determine how the many variables and institutions in a local policy community interact in a location to produce different outcomes.

5.1.2 Environmental Pressure, the Presence or Absence of Focusing Events and Industry Self –Regulation: The Cases of Vancouver and Seattle

5.1.2.1 Environmental Pressure in Vancouver

Vancouver is the main point of departure and home port for cruise ships travelling to Alaska. The *US Passenger Services Act*, which requires foreign passenger vessels to make a stop in another country between domestic stops, secured Vancouver's position in the Alaskan cruise ship market. As a result, Vancouver has become a major cruise ship destination. In 2004, Vancouver received 929,976 revenue passengers from 286 cruise ship voyages (Port Vancouver, 2004).

Vancouver ENGOs are highly aware of the ENGO opposition to the cruise ship industry in Juneau, the ADEC wastewater testing and the new environmental legislation. There is a strong perception in Vancouver that the Juneau legislation on cruise ships was the impetus for activity in Vancouver's policy community (pers. comm., Fisheries and Oceans Canada, September 8, 2003). One Vancouver-based ENGO stated that "the Juneau experience definitely mobilized Vancouver's environmental groups" (pers. comm., Oceans Blue, March 27, 2002).

Subsequently, concerns regarding cruise ships and their impact on Canadian waters arose as part of an increased awareness in the city. If Juneau regarded the wastewater from cruise ships as harmful, as its new legislation demonstrated, and the same ships were travelling to and from Vancouver, why did the Government of Canada not adopt the same legislation? Vancouver-based ENGOs, including West Coast Environmental Law (WCEL), Oceans Blue and cruisejunkiesdotcom used the new legislation in Juneau to press the provincial and federal governments for similar legislation. Table 16 lists a variety of ENGO views concerning Vancouver's lack of

legislation after the new law was passed in Juneau. The quotes come from ENGO publications and demonstrate the pressure two ENGOs agencies exerted in Vancouver's policy community.

Table 16: ENGO Views on the Lack of Wastewater Legislation in Vancouver

Quotation	Publication
Canada's voluntary approach to regulation of cruise ship discharges in Canadian waters is based on unwarranted trust of the cruise industry, and is inconsistent with the findings of a recent Organization for Economic Co-operation and Development (OECD) study and the experience in other jurisdictions. It should immediately by stopped and a process begun for binding regulations that have the force of law.	Klein, R. (2003). "Charting a Course: The Cruise Industry, the Government of Canada, and Purposeful Development", *Canadian Centre for Policy Alternatives*, September 2003, ii.
While there have been dozens upon dozens of offences by cruise ships in the U.S. there is no record that any fines have ever been levied against a cruise ship operating in Canadian waters.	Klein, R. (2003). "Charting a Course: The Cruise Industry, the Government of Canada, and Purposeful Development", *Canadian Centre for Policy Alternatives*, September 2003, p. 23.
Where control and regulations exist in the United States none exist in Canada: there are no standards for gray water discharge and no general prohibitions on untreated sewage discharge.	Nowlan L. and I. Kwan. (2001). Cruise Control – Regulating Cruise Ship Pollution on the Pacific Coast of Canada. West Coast Environmental Law, pp. 3
There are strong reasons favouring strengthening Canada's laws to better control harmful impacts from cruise ship discharges [including] to eliminate the possibility that cruise ships will increase discharges in Canadian waters before entering more tightly regulated Alaskan waters.	Nowlan L. and I. Kwan. (2001). Cruise Control – Regulating Cruise Ship Pollution on the Pacific Coast of Canada. West Coast Environmental Law, pp. 28

ENGOs used various forms of activism to press for change. Some focused on the effects of wastewater discharges from what they deemed as an unnecessary economic activity,

since cruise ships were considered a luxury item carrying rich, white tourists through Canadian waters (Schmidt, 2000). Others questioned the economic impact of the cruise ship industry on Vancouver's local economy (Klein, 2003) and linked the increasing incidence of sick birds and mammals in Canadian waters to rising cruise ship activity (Nowlan and Kwan, 2000). As a Fisheries and Oceans Canada representative stated "the message was that Vancouver was catering to a US market of tourists, producing minimal economic impact, and all at the expense of innocent birds and sea mammals" (pers. comm., Fisheries and Oceans Canada, September 8, 2003).

The policy community for sewage and graywater in Vancouver was different to Juneau in that it had many diverse governmental departments from both the federal and provincial government. These departments included Environment Canada, Transport Canada, Fisheries and Oceans Canada, Port Vancouver, and the British Columbia Ministry of Sustainable Resource Management, and each had its own view on the state of regulation. The view expressed in the interviews conducted for this study was that the federal government was attempting to contextualize the cruise ship industry in context with other economic activities and sources of marine pollution in Canada. Environment Canada viewed the existing regulation of cruise ships as "perhaps indirect but adequate" (pers. comm., Environment Canada, February 10, 2004). According to a representative of Transport Canada, the federal government did not believe that the cruise ship industry was among the ten largest marine polluters in Canada. Fisheries and Oceans Canada reported that "our headquarters in Ottawa does not view cruise ship environmental impacts on the same scale as its declining fish stocks or the impacts of aquaculture (pers. comm., Fisheries and Oceans Canada, September 8, 2003).

The British Columbia Ministry of Sustainable Resource Management approached regulation from a different viewpoint, and was more interested in the cruise ship industry as an economic diversification strategy for the province. A representative from the Ministry stated that she "hoped that no new burdensome legislation would result in Canada and make Vancouver a less desirable port destination for the cruise ship corporations" (pers. comm., British Columbia Ministry of Sustainable Resource Management, November 8, 2002). A representative from Transport Canada said he believes there are many other reasons why the federal government did not deem new legislation on cruise ship wastewater to be warranted. For example, the Transport Canada representative claimed he advised a representative at Fisheries and Oceans Canada that "it would be difficult to address cruise ship pollution before we address the fact that Canadian cities also discharge their untreated wastewaters in coastal waters" (pers. comm., Transport Canada, July 14, 2002). Another difficulty for the Canadian government, as raised by a representative at Fisheries and Oceans Canada, is the issue of fairness. The representative stated "It would be irresponsible for the Federal government to single out and regulate one small sector of a larger industry when other segments of tourism and sources of marine pollution are not" (pers. comm., Fisheries and Oceans Canada, September 8, 2003).

Fisheries and Oceans Canada also said they believed that better regulations in Juneau automatically benefited Vancouver because the cruise ships operate in the same market (pers. comm., Fisheries and Oceans Canada, September 8, 2003). In other words, if Alaska was attracting new ships with state of the art wastewater treatment systems, Vancouver would benefit simply by being in the same market. A representative from

Oceana observed that the Canadian government was counting on receiving environmental benefits from the new legislation in Juneau and stated that "relying on Alaska's legislation to ensure beyond compliance behaviour will transcend to Canadian waters is irresponsible" (pers. comm., Oceana, July 17, 2003).

A representative of the Port of Vancouver hypothesized that the size and diversity of the Vancouver port affected the federal government's tolerance of potential environmental impacts from cruise ship activities. Vancouver is a large coastal city with a dynamic and prosperous port and the cruise ship industry generates 5,584 direct jobs annually and brings in $234 million in GDP (Port Vancouver, 2007). However, while the cruise ship industry certainly contributes economically to the port and to the city of Vancouver, neither the port nor the city relies on the cruise ship industry for economic survival or prosperity (pers. comm., Port Vancouver, October 7, 2003). This is in contrast to Juneau's cruise ship industry, which is a central component to its economic development. Juneau is also unique in that too much environmental damage from the cruise ship industry could spoil the very environment which cruise passengers are coming to see (pers. comm., NWCA, October 15, 2003). The need for Juneau to make political decisions which balance the principles of sustainable development specifically with regards to the cruise ship industry increases the intensity of debate in the policy community when dealing with environmental regulations. Arguably, this level of intensity does not exist in Vancouver's cruise ship policy community because the city has such a diversified economy (pers. comm., Port Vancouver, October 7, 2003).

ENGO pressure in Vancouver, which intensified immediately after the Juneau legislation came into effect, eventually, resulted in a system-maintenance response from

Vancouver's governing institutions in 2001. The federal departments commissioned several cruise ship studies and ensured the public and the ENGO community that the results would be communicated (pers. comm., Fisheries and Oceans Canada, September 8, 2003).

5.1.2.2 Increased ENGO Pressure in Vancouver and a Move toward Industry Self-Regulation

The commissioning of studies by the federal government was not enough to quiet ENGO opposition to the cruise ship industry in Vancouver. ENGO pressure continued and intensified throughout 2001-2003, and many ENGOs decided to respond with studies of their own. Table 17 lists the major events and reports of activism designed to change environmental policies on cruise ship discharges in the 2001 to 2003 period. This list does not include conference presentations, radio and television reports, or public talks throughout 2002 and 2003.

Table 17: Highlights of ENGO Activism Directed at Vancouver Cruise Ship Industry, 2001-2003

Date	Report or Event	Institution
2001	Report: Cruise Control: Regulating Cruise Ship Pollution of the Pacific Coast of Canada	West Coast Environmental Law
February 2002	Report: Report on the International and Domestic Legal Regimes Regulating Waste Streams and Other Marine and Terrestrial Environmental Impacts of Cruise Ship Operations	Oceans Blue Foundation
March 2002	Event: Cruise ship Stewardship Initiative Roundtable	Oceans Blue Foundation
October 2002	Report: "Blowing the Whistle" and the Case for Cruise Certification	Oceans Blue Foundation
2002	Book: Cruise Ship Blues: The Underside of the Cruise Ship Industry	Ross Klein
December 2002	Event: Demonstration against a workshop on coastal tourism development with a panel on the cruise industry	SFPIRG
July 2003	Protest: Royal Caribbean International for sewage discharging	Oceana
September 2003	Report: Charting A Course: The Cruise Industry, the Government of Canada, and Purposeful Development	Ross Klein, The Canadian Centre for Policy Alternatives

In 2003, after two years of such activism Transport Canada drafted guidelines on cruise ships in consultation with the cruise ship industry, Fisheries and Oceans Canada, Environment Canada and the Canadian Marine Advisory Council (pers. comm., Environment Canada, February 10, 2004). This was an institutional re-engineering response designed to achieve good compliance and encourage beyond-compliance

behaviour. Transport Canada opted for guidelines, rather than stringent regulations, in the belief that "the provisions of the *Canada Shipping Act*, the *Arctic Waters Pollution Prevention Act*, the *Fisheries Act* and the *Canadian Environmental Protection Act*, and related regulations adequately addressed environmental concerns regarding discharges from cruise ships into waters under Canadian jurisdiction" (pers. comm., Environment Canada, July 14, 2004).

The draft guidelines sent a clear message to cruise ship operators about the procedures they were required to follow to comply with Canadian legislation. They also encouraged best practices, which exceeded existing regulatory requirements. However, compliance with the guidelines remained voluntary, and did not include any legislation in Vancouver to specifically regulate cruise ships, which is what ENGOs were advocating and continue to advocate for. The draft guidelines were made official on March 31, 2005.

Absent from the Vancouver situation was a significant local focusing event related to the cruise industry. ENGO activism and events in Juneau created enough pressure to trigger activity in Vancouver's policy community and force government responses, but not enough pressure to direct government priorities to legislate against cruise ship wastewater. It is impossible to know whether a sewage or graywater spill in Vancouver would have been or will eventually be a sufficient catalyst for new Canadian legislation on wastewaters.

5.1.2.3 A Significant Focusing Event for Seattle, Environmental Awareness and Industry Self-Regulation

Seattle experienced an environmental crisis in May 2003 that attracted statewide awareness and stimulated many local institutions into action as they considered the roles they could or should assume in the environmental policy community. On May 3, 2003, the cruise ship *Norwegian Sun* accidentally discharged 16,000 gallons of blackwater (raw sewage) while exiting Puget Sound. The sewage was discharged inside the Juan de Fuca Strait, approximately four nautical miles from shore.

The Bluewater Network, a national environmental advocacy group based in San Francisco, California, quickly demanded that the Port of Seattle prohibit cruise ship port calls in Seattle until assurances were provided that there would be no more accidental spills. Jurisdictional conflicts between federal and state authorities quickly emerged, highlighting the inability of existing institutional arrangements to deal with environmental issues. Of primary concern was the difficulty government officials had in determining who was responsible for regulating the spill (pers. comm., Environmental Protection Agency, June 25, 2003). The spill occurred four nautical miles offshore, but the state government's jurisdiction extended only three nautical miles offshore, leading to it to claim in a television interview that the spill fell under the authority of the federal government's USEPA (pers. comm., USEPA, June 25, 2003). However, the spill occurred in inland waters (marine waters bordered by land), which the federal government did not have jurisdiction over. The Port of Seattle's rules and regulations on sewage spills were also challenged, but the Port did not have authority in this area since responsibility for regulating environmental issues in the United States is shared by state and federal governments (pers. comm., Port of Seattle, June 25, 2003). It was eventually

determined that, because the spill was in inland waters, the state government was responsible for its regulation even though the state lacked any specific regulations or policies related to cruise ships (pers. comm., USEPA, June 25, 2003).

The state of Washington's Department of Ecology deemed the sewage spill accidental. "The fact that *Norwegian Sun* captain self-reported the incident guided the Department of Ecology's decision to the conclusion that the spill was not intentional" (pers. comm., Washington State Department of Ecology, June 24, 2003). Based on the department's classification of raw sewage as an organic substance, and the distance of the discharge from shore, the state concluded that the spill caused either no environmental damage or only minimal damage (pers. comm., Washington State Department of Ecology, June 24, 2003). An order, instead of a fine, was therefore levied against the *Norwegian Sun*, and Norwegian Cruise Lines was required to update the ship's software, re-label the pipes and valves on the ship, and retrain the crew within two months. Representatives of the Department of Ecology then inspected the ship to ensure compliance with the order. The incident did not however end there. The absence of a fine and the confusion about jurisdictions raised the awareness of some Seattle-based ENGOs and caused outrage among others.

Within a month of the order being issued, a variety of ENGOs had inserted themselves into the policy community addressing wastewater discharges in Seattle. The People for Puget Sound, a Seattle ENGO, requested a meeting with representatives of the relevant institutions to discuss the scale and scope of the cruise ship industry and its environmental impact (pers. comm., People for Puget Sound, June 25, 2003). Ocean Advocates, a national ENGO with an office in Seattle, expressed its anger in the local

media and at many of the public meetings held by the Port (pers. comm., Ocean Advocates, June 23, 2003). At one point, Ocean Advocates considered launching civil action against the cruise industry for the spill (pers. comm., Ocean Advocates, June 23, 2003). ENGO activity continued through late 2003, when the Bluewater Network published *The Cruise Industry and Environmental History and Practice: Is a Memorandum of Understanding Effective for Protecting the Environment?,* which focused on government policy responses to issues in the Seattle cruise ship industry.

The *Norwegian Sun* incident stirred activity in Seattle's cruise ship policy community and put the spotlight on Seattle's environmental policies governing cruise ships. Before the sewage discharge, regulation of cruise ships in Seattle was not even being considered. In the beginning of June 2003, the Port of Seattle was only "thinking about thinking about an MOU" (pers. comm., Port of Seattle, June 25, 2003).

Increased publicity and ENGO pressure after the *Norwegian Sun* discharge forced a response from Washington State's Department of Ecology. In 2004, the Department proposed guidelines for an MOU with the NWCA, the Puget Sound Clean Air Agency, and the Port of Seattle. The MOU would apply to state and international waters in the Juan de Fuca Strait and would resolve jurisdictional issues about that body of water. The proposed MOU simply echoes ICCL and NWCA guidelines for their member cruise companies, especially those prohibiting the discharge of sewage and graywater in the Juan de Fuca Strait without an advanced wastewater treatment system approved by the United States Coast Guard. The state and industry MOU for the cruise industry was signed in March 2004 and had an additional requirement that cruise ships may not dump heavier sewage sludge within 12 miles of the coast (Ith, 2004). These treatment systems

are regulated by a monitoring and testing program specifically designed for continuous discharge from ships. Environmental groups immediately responded negatively to the signing of the MOU by stating to *Seattle Times* staff reporter Ian Ith "(i)t's shameful that the public and the environment have been sold out so the polluters can make a profit" (Bluewater Network Representative, quoted in Ith, 2004:1).

It is important to understand that an MOU is not a regulation, and operates on the basis of trust and voluntary behaviour. As a result of this perceived weakness, the MOU raised more awareness to cruise ships and their environmental impacts. In a 2004 interview with *USA Today*, a state representative from Seattle announced her opposition to the MOU, asserting the MOU represented an effort by the Washington Department of Ecology and NWCA to preempt environmental safeguards and secure business opportunities for the port (USA Today, 2004). The state representative countered by proposing a bill to prohibit the dumping of wastewater, including sewage and graywater, from passenger ships in state waters. A representative of the Department of Ecology admitted that the voluntary MOU would not give the government any additional enforcement ability (*USA Today*, 2004).

Although Seattle's governing institutions had substantial political and ENGO support creating for environmental policies in the form of regulations, other political agendas, such as those concerning economic development, influenced the city's response. Despite the awareness created by the environmental focusing event in Seattle, environmental policies were slow to change, and once incorporated, they had very little strength. The representative from the Port of Seattle foreshadowed this 2004 decision for a voluntary mechanism when he explained, in June 2003, the reasons behind for the lack

of cruise ship specific environmental policies. According to the representative, Seattle's socio-economic characteristics played a key role in the environmental policy-making process. Specifically, Seattle had a difficult time striking a balance between its environmental and economic interests and had to make several politically driven decisions.

5.1.2.4 Local Politics and Politically Motivated Decisions in Seattle

In the late 1990s, the Port of Seattle embarked on a campaign to increase cruise ship visits and promote the city as a home port for specific cruise lines. Its strategy was to reduce the costs to cruise companies in port in Seattle and encourage cruise companies to make Seattle their home port instead of Vancouver (pers. comm., Port of Seattle, June 25, 2003). The Port's overarching goal was economic development.

In 2001, Seattle experienced an earthquake that caused extensive damage to its Sea-Tac Airport. The Port of Seattle's budget includes the operations of the Sea-Tac Airport and the Seaport. As a result of the earthquake and other re-development projects, including the revitalization of the city's seawall, also under the budget of the port, the Port of Seattle lost money from 2001 to 2003 (pers. comm., Port of Seattle, June 25, 2003). These economic problems underlined the importance of the cruise ship initiative to Seattle in 2002 and 2003. The cruise ship industry was viewed as an opportunity for economic diversification that could provide added revenue and perhaps revitalize the Port. The Port of Seattle representative also noted that there was a general consensus from the municipal and state governments that new environmental legislation to govern the cruise industry would reduce any comparative advantage they had over Vancouver (pers. comm., June 25, 2003). Since Seattle did not have a natural comparative

advantage over the Port of Vancouver the state government in Seattle made the decision to continue to provide incentives to draw cruise ship business from Vancouver. Introducing more burdensome legislation in 2003 would have discouraged ships from relocating to Seattle (pers. comm., Washington State Department of Ecology, June 24, 2003).

Although, the focusing event stirred activity in the policy community and generated a heightened awareness to the environmental impacts of cruise ships, the timing of the sewage spill in Seattle was not conducive to the development of new environmental legislation. Seattle had difficulties in balancing the three objectives of sustainable development due to the rising dependence on the cruise ship industry in Seattle to help balance out a budget greatly affected by an earthquake. In some locations, it is more difficult to strike an appropriate balance between the three principles and move forward towards sustainability. This does not presuppose that preservation of the environment is not a priority in some locations; rather, economic development or survival can trump environmental concerns and influence the policy responses of government. The cases of Hobart and Prince Rupert provide further examples of locations where environmental concerns were minimized in favour of economic development.

5.1.3 The Dominance of Economic Principles of Sustainable Development

Economic priorities are currently the primary concern of policy-makers in Hobart, Australia. The city has used tourism, and cruise ships in particular, as part of its economic development strategy (pers. comm., Cruise Tasmania, January 30, 2003), and the citizens of Hobart are reported to have a very positive opinion of the cruise ship industry and its passengers (pers. comm., Tasmanian Conservation Trust, January 23,

2003). As a representative of the Tasmania Conservation Trust noted, Hobart's population is proud of being a destination sought out by others. Many have also noted that the increased tourist arrivals have reversed the emigration trends of previous years, providing hope for future development in the city (pers. comm., Tourism Tasmania, February 20, 2003).

Because of its unique and fragile environment, Tasmania is considered by many to be extremely environmentally aware. Despite this, ENGOs in Hobart report having "no sewage or graywater concerns with the cruise industry at this time" (pers. comm., Tasmania Conservation Trust, January 23, 2003). A representative of the Tasmania Conservation Trust commented that "environmental issues for cruise ships are not currently in the mindset of the environmental groups and the slow levels of increase in cruise ship visits have yet to produce any visually negative impacts" (pers. comm., Tasmania Conservation Trust, January 23, 2003). Local ENGOs also believe that current water flows in the harbour adequately disperse and remove the existing level of pollutants (pers. comm., Hobart Ports, March 6, 2003).

In Hobart, many of the representatives of the institutions interviewed for this study noted that both politicians and citizens chose to see the cruise ships as a benefit to the city, rather than a hazard (pers. comm., Tasmanian Conservation Trust, January 23, 2003). When asked about the effects of wastewater, the Hobart Harbourmaster asserted that "common sense tells us that discharging into a constant and strong current, like the one in our harbour, will sustain the health of the harbour" (pers. comm., Hobart Ports, March 6, 2003).

Hobart Ports has experienced financial difficulties since the privatization of the port in 1998. Hobart attracts fewer ships than most major ports in Australia and has less revenue to use for environmental protection measures (pers. comm., Hobart Ports, March 6, 2003). After the corporatisation of Australian ports, Hobart Ports was forced to reduce its personnel (Australian Maritime and Safety Association (AMSA), 1998). AMSA has acknowledged that inadequate financial resources have affected Tasmania's capacity to respond to pollution events and enforce pollution regulations: "In Tasmania... the responsible State/NT authority has not been provided with any significant response capability" (AMSA, 1998: 74). The privatization of the ports in Australia has forced them to become more commercially focused limiting their abilities to respond to pollution events (pers. comm., Hobart Ports, March 6, 2003). In other words, Hobart's need to concentrate on its core business activities has meant that environmental regulations and policies are not ranked as priorities (pers. comm., Hobart Ports, March 6, 2003).

The most alarming potential conflict relates to wastewater, including oil, and possible spills. A representative of Hobart Ports has admitted that if a spill occurred, they might be better off to turn a blind eye than to clean up the spill since the effort would probably bankrupt the port (pers. comm., Hobart Ports, March 6, 2003). Sewage and graywater have rarely been issues in Hobart, as its cruise industry has only recently become significant in size. Given the absence of oil spill regulations and response mechanisms, it seems safe to assume that sewage and graywater discharges will remain non-issues as long as attitudes towards discharges and the financial difficulties associated with privatization do not change.

Like Hobart, the community of Prince Rupert, in northern British Columbia, Canada, relies primarily on resource-based activities such as fishing, logging and tourism for its economic survival. The city has a declining population of less than 17,000, and available resources have long dictated the site's economic development strategies (Tamblyn and Horn, 2001). As is the case in many resource-based communities, the city's prosperity can fluctuate considerably, based on trends in the market and the availability of resources. Fishing has long been the dominant source of income and jobs in Prince Rupert, which was once home to the largest cannery in the world (Tamblyn and Horn, 2001). Unfortunately, the fishing industry along the British Columbia coast is in crisis, and Prince Rupert's economy has suffered accordingly.

The logging sector in Prince Rupert has also been in decline with the city's sawmill under great financial difficulty since 2000. Previously operated by Skeena Cellulose, the mill has been idle since 2001, when the province forced Skeena into receivership. North West British Colombia (NWBC) Timber and Pulp Ltd. bought the idled mill and related assets for $8 million in 2001, but despite many public announcements of many start-up dates, the mill had not reopened by 2004 (pers. comm., Tourism Prince Rupert, September 3, 2003).

The decline of the fishing and logging industries in Prince Rupert has caused many of its citizens to relocate to larger cities as their homes are repossessed and their schools are closed. Officials in Prince Rupert know the town needs to be revived and tourism seems to be the most obvious answer (pers. comm., Prince Rupert Port Authority, September 4, 2003).

Tourism is an option in Prince Rupert because of its harbour and its close proximity to the mountains as well as the fact that it is also situated along the VIA Rail and B.C. Ferries routes (Tamblyn and Horn, 2001). In 2003, Prince Rupert received between 300,000 and 500,000 and was seeking to increase those numbers to offset the declines in fishing and forestry (pers. comm., Tourism Prince Rupert, September 3, 2003). The cruise ship industry was among the tourism options examined. Prince Rupert already received pocket cruises (often shorter in duration than full ocean cruises and aboard smaller ships) and one or two larger ships per season, but its geographical position relative to Alaska, combined with the requirements of the *US Passenger Services Act*, suggested that there was strong potential for an increase in the number of cruise visits (McDowell Group, 2003). In partnership with the City of Prince Rupert, the Province of British Columbia and the Government of Canada, The Prince Rupert Port Authority built a $9 million cruise ship facility, which opened in time for the 2005 season. In 2005, Prince Rupert received 50 cruise ship visits and welcomed 98,000 passengers (Prince Rupert Port Authority, 2006). In 2008, Prince Rupert Port Authority has estimated that they will receive 65 cruise ship visits in the 2008 season and welcome approximately 103,044 passengers (Prince Rupert Port Authority, 2008).

Despite the increasing importance of tourism and the reliance of tourism on the natural marine environment, no new environmental policies for sewage and graywater discharges from ships were developed following the construction of the city's new cruise ship dock (pers. comm., Prince Rupert Port Authority, September 4, 2003). According to a representative from the Prince Rupert Port Authority, three types of governance already regulate the operation of the harbour. First, the *Canada Marine Act 1998* established the

governance of the marine environment by the federal government. Second, the *Canada Marine Act 1998* allowed the Governor in Council to enact the *Port Authorities Operating Regulations.* The federal government controls both forms of governance making it difficult for the city of Prince Rupert to alter them.

The third type of governance emerged in the form of *Practices and Procedures for Public Ports* (2003), introduced pursuant to Section 76 of the *Canada Marine Act.* These practices and procedures are implemented at the discretion of the Port Authority and can thereby be used to expand on the *Port Authorities Operations Regulations.* The practices and procedures do not possess the same power as command and control regulations, but they do act as codes of conduct, which can be amended in conjunction with public input (pers. comm., Prince Rupert Port Authority, September 4, 2003). Current practices and procedures do not contain any clauses specifically pertaining to cruise ship waste or the discharge of sewage or graywater by ships. The Prince Rupert Port Authority is, however, aware of the ICCL and NWCA industry code of conduct and expressed confidence that ships were complying with it (pers. comm., Prince Rupert Port Authority, September 4, 2003).

Any local concerns that have been expressed about the cruise industry revolve around how the local community and businesses can profit from the industry and what the arrival of the ships will mean for the future economic development of Prince Rupert (pers. comm., Tsimshian Tribal Council, September 5, 2003). As of 2003, no local ENGOs had raised concerns about pollution or environmental impacts (pers. comm., Tourism Prince Rupert, September 4, 2003).

Only the Tsimshian Commission in Prince Rupert, which represents the local First Nations population, has raised the issue of the social component of sustainable development. The Tsimshian Commission has focused on ensuring that the culture of the First Nations community is not compromised by the arrival of the cruise passengers, but environmental issues have not been included on the council's planning agenda (pers. comm., Tsimshian Tribal Council, September 5, 2003). While the Tsimshian Commission may oppose the cruise ship industry on environmental grounds at some point in the future, residents of Prince Rupert, including the Tsimshian, need the cruise ship industry to diversify their shrinking economy (pers. comm., Prince Rupert Port Authority, September 4, 2003; Tsimshian Tribal Council, September 5, 2003).

Attracting cruise ships to Prince Rupert has not been easy, with competition coming from other British Columbia ports, including Vancouver, Campbell River and Victoria. The Prince Rupert Port Authority and Tourism Prince Rupert made a politically motivated decision to invest a significant amount of municipal funds in the cruise ship terminal, knowing the city could suffer financially if the cruise industry does not develop. The marketing of Prince Rupert as a tourism destination is the city's most important priority at this time, relegating environmental issues to the margins (pers. comm., Prince Rupert Port Authority, September 4, 2003).

5.2 Conclusion

This chapter has focused on local politics and the environmental policy responses of governments to the influences of the broader policy community. Many factors affect how and why governments make decisions on environmental policies. The analysis of focusing events in Juneau demonstrates how ENGO and citizen awareness, combined

with the presence of focusing events, brought the issue of cruise ship wastewater to the fore. Many different institutions interacted within the policy community in Juneau, including representatives from both the state and the federal government. Local politics and politically motivated decisions, including tensions between the federal and state governments, upcoming elections and other economic activities further influenced the process. Local events resulted in legislative policy change in Juneau and reveal the importance of local politics in shaping the decision-making processes. The Juneau case study provides compelling evidence that multiple factors influenced the environmental policy-making process, but also shows that those factors are specific to Juneau. Examinations in the other locations reveal that environmental policy-making processes are markedly different in each location, even if the conditions appear very similar. The comparative case study analysis used in this dissertation confirms the importance of the local in understanding the environmental policy-making process.

For example, Vancouver has a significant history of environmental activism, with both local and nearby ENGOs playing key roles. While events in Juneau did push cruise ship wastewater onto the political agenda, in Vancouver no legislative changes resulted. The federal and provincial governments examined the cruise industry in the context of other economic activities and concluded that the comparative potential for environmental damage from cruise ship activities was minimal. Vancouver government officials also argue that the legislation introduced in Juneau would offer Vancouver's port sufficient protection against wastewater discharges from cruise ships. It is impossible to know whether a significant focusing event in Vancouver, occurring at the 'right' time, would have altered the city's policy response.

Seattle's experience with the cruise ship industry adds yet another dimension to the analysis of local politics, showing how political decisions can impact the balance of sustainable development principles. Seattle did experience a significant focusing event when raw sewage was accidentally discharged in its harbour. As the literature predicted, the event led to increased activity in the policy community, among ENGOs and to local opposition to the cruise industry. Nevertheless, federal, state and municipal governments chose not to fine the cruise corporation in question and not to enact legislation against the cruise ship industry. Economic concerns in the city of Seattle and at the Port of Seattle in particular resulted in a government response, which acknowledged the potential environmental effects of the cruise industry without imposing strict legislation.

Events in Juneau, Sydney, Vancouver and Seattle highlight the fact that the environmental policy-making process evolves according to local events and characteristics, but is shaped by local politics and political decisions. Focusing events, active institutions and socio-economic considerations all play a role in the policy-making process. However, depending on the site and the existing local politics, the same factors may have varying degrees of importance. For example, a focusing event was central to the introduction of legislative change in Juneau and Sydney but did not trump socio-economic considerations in Seattle. Similarly, economic concerns in Hobart and Prince Rupert marginalized any environmental opposition to the cruise industry. An examination of different governments' responses and the broader influences of the policy community reveal that it is a combination of local awareness, events and institutions frames the environmental policy-making process and the local politics and political

decisions that shape it. The next chapter examines how the cruise ship industry adapts and responds to the many aspects of environmentalism which affect their operations.

CHAPTER 6: CORPORATE ENVIRONMENTALISM AND CORPORATE RESPONSES TO THE INFLUENCES OF MULTIPLE POLICY COMMUNITIES AND LAYERS OF REGULATION

The role of cruise ship corporations in a policy community is shaped by their internationality and their mobility. The international nature of the cruise ship industry and the mobility of its ships require the representatives of the cruise lines to be aware of numerous layers of regulation and local policy communities simultaneously. As a result, the environmental policies of certain cruise ship member lines or associations may have been implemented to address a past event or the political climate in one location, but still apply in other locations. This can have either a positive or negative outcome depending on how appropriate the corporate environmental policy is to the other locations. In addition, the cruise ship industry may be required to adhere to an international law that is not upheld locally or a local law that does not exist internationally.

In order to accommodate for numerous policy communities, varying scales of regulation and a diversity of consumers, representatives from the cruise ship industry have responded with a variety of policy mechanisms. These include cruise ship certification, industry-wide standards and the redeployment of ships to places that have more accommodating policy environments. This chapter will examine what motivates the representatives of cruise ship corporations to work within or respond to local policy communities and their decision to incorporate environmentalism into their policies. It will be shown that some of the environmental policies upheld by the cruise ship

corporations were designed to respond to specific pressures and events while other environmental policy decisions were strategically rationalized for corporate benefit.

6.1 Motivations for Corporate Environmentalism

The environmental practices of the cruise ship industry, specifically in relations to its wastewater emissions and discharges, have been heavily criticized by many ENGOs. The history of deliberate discharges documented throughout the United States reinforces the public's awareness and generates general feelings of distrust. Some ENGOs and media sources have portrayed the industry as a major polluter. Cruise ship industry representatives have countered by promoting the industry's environmental programs and recent compliance with international, national and local laws and regulations. Regardless, the debate has generated awareness of cruise ship environmental practices and generated numerous responses from the industry.

In practice, there are many policy mechanisms and political variables for cruise ship company representatives to consider when deciding whether to implement corporate environmental policies. For example, corporate environmental policies could be part of a larger marketing strategy designed to attract environmentally conscious consumers. Alternatively, cruise ship company representatives may see long-term economic benefit in new environmental technologies or decide that protecting the environment ensures the preservation of its asset base. Table 18 presents the stated motivations of some cruise lines and industry associations for implementing environmental policies.

Table 18: Examples of Industry Motivations for Implementing Environmental Policies

INTERVIEWEE	DATE	QUOTATION
ICCL representative	March 2005 (ICCL Website)	The cruise industry's goal is to ensure that the environmental practices we put together today are the best programs possible for preserving the marine environment. These environmental standards show the cruise industry's commitment to the environment by developing new technologies and practices that minimize the impact of the cruise ships on the oceans upon which our vessels sail.
Princess Cruise Lines representative	June 18, 2003 (Personal Communication)	A loss in consumer respect can lead to a huge loss in profits.
NWCA representative	October 15, 2003 (Personal Communication)	The cruise ship industry is a business and good environmental behaviour has proven itself to be directly related to revenue.

A representative from the NWCA conceded that some cruise ships act in an environmentally responsible manner less out of environmental concern than out of a desire to survive. Many of the green certification programs have been adopted for this reason. In this scenario, cruise ship representatives certify certain ships operating in environmentally sensitive locations to appease consumer demand. According to one representative "(m)any passengers can ignore the reputation of the industry as a whole if their ship or vacation activities can be said to protect the environment" (pers. comm. NWCA, October 15, 2003). Vacationing on a ship with green certification can ease the concerns of some consumers and environmentally friendly ships can also tailor their on-board programs and regulations to meet passengers' expectations.

Corporate marketing techniques and the desire to protect the asset bases for personal gain are both motivations for corporate environmental policy responses yet neither of them necessarily involves interactions with local policy communities. In addition to the local policy community, the representatives of cruise ship corporations have the interests and desires of the cruise ship passengers to consider, as well as the future of their businesses. As environmental awareness increases globally, many cruise ship passengers are demanding more environmentally friendly cruise experiences (pers. comm., Royal Caribbean Cruise Lines, July 16, 2003). There is also an increased desire to travel to environmentally pristine locations. An NWCA representative indicated that, "(i)f consumers are demanding a clean environment, it is in our interest and in the interests of the industry to maintain a clean environment" (pers. comm., NWCA, October 15, 2003). The international nature of the cruise ship industry also makes its community of passengers very diverse, which adds another dimension to the environmental policy-making process. Through the internet, consumers are able to add a layer of accountability to the behaviours of the cruise ship industry and its staff by reporting any inappropriate actions they witness (pers. comm., Oceana, July 17, 2003). The internet also provides local policy communities with a medium through which they can communicate their views to potential passengers and relay specific environmental concerns or messages (pers. comm., Oceans, July 17, 2003; pers. comm., Princess Cruise Lines, June 18, 2003). Regardless of the international nature of the industry, local policy communities have been able to influence representatives from the cruise ship industry in other ways and incorporate the notions of local values into their corporate philosophies.

Some cruise ship corporations have decided to implement environmental policies based on the markets they serve. For instance, many Holland America cruises feature travel to pristine destinations, including Juneau. The company boasts Alaska as one of its main destinations, with the environment and environmental site-seeing marketed as major attractions for passengers (pers. comm., Princess Cruise Lines, June 18, 2003). In order to maintain legitimacy in these pristine destinations the local policy community must feel that the environment is being protected. As a Princess Cruise Line representative stated "(y)ou cannot convince your passengers that you are respecting the environment if there are visual demonstrations in every port" (pers. comm., Princess Cruise Lines, June, 18 2003). Based on consultations with Juneau's institutions and citizens, Holland America retrofitted the majority of its fleet with new state-of-the-art waste treatment systems (pers. comm., Princess Cruise Lines, June 18, 2003). The high level of environmental protection provided by Holland America ships has raised travellers' expectations for cruise ship wastewater systems on similar voyages with other cruise ship companies indicating that Holland America set the bar in the North Pacific cruise ship market (pers. comm., Princess Cruise Lines, June 18, 2003; pers. comm., Royal Caribbean Cruise Lines, July 16, 2003).

Both Holland America and Princess Cruise Lines have made considerable efforts to occupy prominent positions in Juneau's policy community. While Holland America used the new wastewater systems for this purpose Princess Cruise Lines has contributed to local charities and infrastructure projects (pers. comm., Princess Cruise Lines, June 18, 2003). In this manner, Holland America and Princess Cruise Lines have adapted their

corporate culture to respond to local characteristics and institutions in Juneau and among their consumer base, and both continue to thrive in that location.

In comparison, Carnival Cruise Lines travels primarily to the Caribbean and focuses more on the journey than the destination. Carnival Cruise Lines markets themselves as the 'Fun Ships.' Despite the fact that both are owned by Carnival Corporation, Carnival Cruise Lines and Holland America have chosen different marketing techniques and travel destinations. Carnival's ships promote the opportunity to enjoy the sun, surf and sand at reasonable prices (pers. comm., Carnival Cruise Lines, April 3, 2003). Carnival attempts to entice large numbers of people to experience a cruise ship in a warm environment, with little or no emphasis on the local environment (pers. comm., Princess Cruise Lines, June 18, 2003). Of Carnival's 21 cruise ships, only one, the *Carnival Spirit*, travels to Alaska on a regular basis. In comparison, six of Holland America's thirteen ships make Alaska their primary destination (Appendix A).

6.2 Corporate Responses to Local Pressures

6.2.1 Legislation and Industry Standards

In response to the numerous policy expectations from various jurisdictions, the cruise ship industry has tended to rely on the benefits of industry wide associations and their standards. As mentioned in Chapter 2, cruise ship companies tend to organize themselves in membership alliances as experience dictates that the negative behaviour of one ship can taint the reputation of the entire industry (pers. comm., Princess Cruise Lines, June 18, 2003). The ICCL has an environmental mandate and policy that purports to cover the majority of the cruise lines and their fleets. It claims to adequately regulate

the environmental impacts of cruise ships through the industry associations and the standards and codes of conducts that are in place. The North Pacific cruise ship market also relies on the NWCA to impose industry-wide regulations to conform to the strict environmental expectations created by the standards set in Juneau.

At the beginning of the year 2000, no federal or state laws regulated the discharge of sewage and graywater in Juneau, Alaska. Less than six months later, on June 11, 2001, and three weeks before Juneau and the state of Alaska were to introduce legislation regulating wastewater discharges from cruise ships, ICCL announced that its members had unanimously adopted mandatory industry-regulated environmental standards for all the cruise ships in the association.

This set of practices and procedures, entitled *Cruise Industry Waste Management Practices and Procedures*, was based primarily on the regulations of the IMO and the USEPA (Sweeting and Wayne, 2006). The standards included designing and constructing cruise ships to be as environmentally friendly as possible, embracing new technology, complying fully with international and U.S. environmental laws, minimizing waste production, and maintaining co-operative relationships with the regulator community (Sweeting and Wayne, 2006).

The proximity in timing of ICCL's and NWCA's environmental policies and the new state legislation was neither a coincidence nor without benefits to the industry (pers. comm., Alaska state representative, July 17, 2003). The direct pressures associated with local politics in Juneau, described in Chapter 5, were known to the cruise ship industry's representatives. As a representative from Princess Cruise Lines noted:

> The members of the cruise ship industry watched the regulation battle between the federal and state government with particular interest. We determined it was in our best interest to work on industry standards separately, but in parallel (pers. comm., Princess Cruise Line, July 18, 2003).

In a similar way, the focusing events and politics that led to new government policies in Juneau also informed ICCL's policy response. In 2006, Sweeting and Wayne published a book chapter that describes the history of the emergence of industry self-regulation in Juneau. The research completed for this dissertation supports their findings. In the year 2000, an American ENGO petitioned the EPA on behalf of several organizations, asking for an in-depth assessment of waste streams from cruise ships (Sweeting and Wayne, 2006). The EPA in co-ordination with ICCL and the Science Advisory Panel of the State of Alaska responded with several studies examining the composition, dispersion and impact of graywater and blackwater discharge from cruise ships (Sweeting and Wayne, 2006). The studies, described in detail in Chapter 5, revealed that levels of fecal coliform in graywater were high only when existing MSDs were misused: "High bacteria counts were only found when graywater was not regularly discharged and instead held in tanks near warm engine compartments, which helped accelerate bacterial growth" (Sweeting and Wayne, 2006: 332).

In light of these studies' conclusions and growing political concerns in Juneau, ICCL representatives committed the ships in its association to discharging graywater and treated blackwater only while the ship was under way and proceeding at a speed of at least six knots. ICCL representatives also agreed not to discharge wastewater in port or less than four nautical miles from shore or the distance dictated by local laws. Each

ICCL member line integrated these standards into its SMS, which ensures compliance through internal and third-party audits.

In Juneau, the local focusing events, characteristics and policy communities resulted in new government legislation and corresponding industry regulation. However, the ICCL regulations also apply to cruise ships outside Alaskan waters and in jurisdictions without corresponding regulations or legislation including Seattle, Vancouver and Prince Rupert. In these locations only voluntary standards apply to regulate cruise ship industry wastewater discharges, leading some to question whether industry-wide standards can be effective without corresponding legislation and local awareness (pers. comm., Ocean Advocates, July 23, 2003; pers. comm., Oceana, July 17, 2003). These questions bring the debate between industry self-regulation and command and control mechanisms to the fore. Representatives from Oceana claim that the ICCL's environmental policy was incorporated mainly to respond to events in Juneau, which means there is no incentive for cruise companies to comply with those policies outside Juneau's waters.

A representative from Oceana said she believed the cruise ship industry's motivation for adopting the ICCL regulations was to appease environmental concerns in other policy communities before they enacted their own legislation (pers. comm., Oceana, July 17, 2003). As a Princess Cruise Lines representative noted: "It is easier for cruise ship personnel to adhere to one set of environmental standards on a voyage instead of being forced to adapt to different standards while in motion" (pers. comm., Princess Cruise Lines, June 18, 2003). There is no guarantee that, if Vancouver, Prince Rupert or Seattle enacted their own legislation, it would match that of Juneau. The Oceana

representative stated that there are good reasons for legislation to differ depending on the location: "Legislation should be based on the location's ecosystem and its other coastal users – not copied and pasted from another place without context" (pers. comm., Oceana, July 17, 2003).

The following sections look at both industry self-regulation and the motivations for cruise ship corporations to move beyond compliance with regards to sewage and graywater emissions, it also examines the skepticism of ENGOs, which argue that corporations cannot be trusted, especially in the absence of strict legislation. The Sydney case study will be used to demonstrate that, in some locations, strict legislation can motivate corporate decisions and hinder innovation.

6.2.2 Industry Self-regulation, Beyond Compliance Technologies and the Cruise Ship Industry

Industry self-regulation of activities which affect environment usually begins and evolves with the actions and pressure tactics by institutions outside the economic domain. As Sonnenfeld and Mol (2002: 1324) have stated "(m)ost economic actors have to be put under pressure before 'voluntarily' contributing to environmental improvements". Political decisions, ENGO activism and consumerism have all helped to push corporations to examine the benefits of environmental policies and the ways to they can make environmentalism profitable. These push tactics are an effort to promote sustainable development by encouraging the major economic players to incorporate environmentalism into their activities. An understanding of the economic costs and benefits of incorporating environmentalism, including reduced fines and increased

consumer respect and loyalty, has encouraged the development of beyond compliance technologies and practices in some scenarios.

The Juneau legislation has had a significant effect on the adoption of advanced wastewater treatment systems that go beyond the legislative requirements. Cruise ships that meet United States Coast Guard testing requirements are exempt from the cruise ship legislation in Juneau and may continuously discharge anywhere in Alaska. To become certified, ships must submit test results from at least five effluent samples over a 30-day period, and the samples must satisfy strict requirements, including having no more than an average fecal coliform level of 40 colonies per 100 litres of water (pers. comm., United States Coast Guard, July 15, 2003). Once certified, the ships must continue to submit these samples on a bi-monthly basis. Since the law passed in 2001, 32 large vessels, representing over 90% of the North Pacific cruise fleet, have been registered for continuous discharge (Alaska Department of Environmental Conservation, 2004). The United States Coast Guard standards to register cruise ships are US specific, yet the Canadian destinations in the North Pacific market recognize the wastewater systems and have also allowed continuous discharging when the US standards are met.

The major cruise lines have responded to the challenge of preserving the environment through the introduction of new technologies. Although sewage and graywater can legally be discharged in most waters and ports, some cruise lines have opted for even more restrictive policies than those committed to by ICCL. The three major cruise corporations, Carnival Corporation, Royal Caribbean International and P&O Princess plc, as well as some small companies such as Radisson Seven Seas Cruises, have corporate programs for implementing and exceeding ICCL practices and

procedures (pers. comm., NWCA, October 15, 2003). These cruise ship companies are implementing leadership practices, testing and refining new technologies and developing management programs to address the environmental effects of their activities. Table 19 lists the cruise ship companies that have introduced regulations that go beyond compliance with current regulations, as well as summarizing these companies' regulations.

Table 19: Cruise Ship Regulations that Go Beyond Compliance

Cruise Ship Company	Beyond-Compliance Regulation
Carnival Corporation	Prohibits discharge of graywater less than 12 nautical miles from land
Royal Caribbean International	Prohibits discharge of graywater less than 12 nautical miles from land
Holland America	Adheres to a zero-discharge policy in harbours, special areas and protected, pristine environments

Cruise ship companies have also introduced other practices to reduce the overall volume of wastewater, thereby lowering treatment costs and discharge volume. For example, Royal Caribbean and P&O Princess Cruise Lines ships use low-flush toilets and other water-saving devices that greatly reduce the amount of blackwater generated on-board.

Individual cruise companies, including Princess Cruise Lines and Holland America, have demonstrated considerable commitment to the development of new technologies. For example, within a year of the introduction of wastewater regulation in Alaska, Holland America announced the introduction of Zenon, a new wastewater processing system developed by Zenon Environmental Inc. that turns blackwater and graywater into near-drinking-water quality (Alaska Department of Environmental

Conservation, 2004). In 2001, Holland America began an awareness campaign in Vancouver to demonstrate the Zenon waste water processing system to local politicians, government departments, academics and the media, among others with staff conducting tours of the new facilities while in Vancouver Port. The Princess Cruise Line representative explained that the Holland America's management was aware that environmental opposition was rising in Vancouver and that government officials were being pressured to enact cruise ship legislation. He explained "(t)hey felt an awareness campaign at that time would provide the government port officials, and maybe some of the public, with information that could set their minds at ease" (Pers. comm., Princess Cruise Lines, June 18, 2003). Other cruise companies have been developing similar technologies with other companies, including Rochem, Alpha-Laval, Hamworthy and Hydroxyl. A representative from Fisheries and Oceans Canada said he believes that the technology race is a fight for consumer loyalty by tapping into environmentally conscious consumer market, but admitted that, "regardless of the motive, the new technologies will serve to protect the environment and make sustainable development objectives more attainable" (pers. comm., Fisheries and Oceans Canada, September 8, 2003).

Cruise ship corporations have invested approximately $50 million in new treatment technologies, supporting higher standards and educating their crews (Wayne and Sweeting, 2006). The approximate cost of installing the new technology is U.S. $3 million per ship, and rigorous testing is required. When cruise ships install this technology, it must be certified by the United States Coast Guard to be used in U.S. waters. As of June 2008, officials in Vancouver do not conduct specific tests on ships

with the advanced wastewater treatment systems and instead rely on the US Coast Guard testing.

For their part, many ENGOs have insisted that the voluntary nature of self-imposed regulation is weak and does not solve the industry's credibility problems (pers. comm., Earth Island Institute, July 18, 2003; pers. comm., Oceans Advocates, June 23, 2003; pers. comm., Oceana, July 17, 2003; pers. comm., Oceans Blue, March 27, 2002). In the words of one ENGO representative, "The industry self-regulation seems logical, but a little too simplistic and ignores the deliberate discharging by cruise ship companies" (pers. comm., Oceana, July 17, 2003).

A lack of trust in corporate motivations, accountability and transparency has become central to concerns over the policy responses chosen by industry. In the absence of strict international laws for sewage and graywater emissions, most corporate policy responses are in the form of industry self-regulation or voluntary mechanisms. The acceptance of both require that a degree of trust be granted to representatives from the cruise ship lines and their employees on individual cruise ships, but that trust does not always exist. As one ENGO representative stated "(v)olunteer agreements never work. 'Trust me,' is not an environmental policy" (Bluewater Network Representative, quoted in Ith, 2004:2). ENGOs have asserted that ICCL regulations have been promoted in jurisdictions outside Alaskan waters mainly to avoid the strict government legislation that applies in Juneau. Alaska is the main destination along the North Pacific coast, and it is the destination passengers are paying to see. It is only logical that appeasing the policy community in Juneau is a primary focus of the cruise ship industry operating in that area (pers. comm., Oceana, June 23, 2003).

By contrast, Prince Rupert, Vancouver and Seattle all need to compete for cruise visits, making decisions on port services and regulatory requirements more politically pragmatic. As explained in Chapter 5, political decisions must be made to balance the objectives of sustainable development. Implementing ICCL standards did not halt the political processes occurring in Juneau or stop the planned legislation, but it did satisfy officials in Seattle, Vancouver and Prince Rupert and influenced them not to introduce their own legislation. The notion prevailed that there was no reason to introduce new laws if the industry's own standard was higher than any existing regulations (pers. comm., Fisheries and Oceans Canada, September 8, 2003). Industry self-regulation became the preferred policy option in Vancouver and Seattle, and the least burdensome option for industry.

Following the events in Juneau, in 2004, a Seattle state representative raised the possibility of legislating cruise ships in Washington. The proposed legislation would have prohibited ships from discharging treated or untreated sewage and graywater within 12 nautical miles of shore. Representatives of the industry argued against the legislation on several grounds. If the legislation was interpreted as no-discharge legislation, the advanced treatment systems which granted continuous discharge rights in Alaskan waters would not be allowed to discharge in Washington state waters. Therefore, the industry argued, ships would have no choice but to dump raw sewage and graywater outside the no-discharge zone. They further argued that if the advanced treatment systems which granted continuous discharge rights in Alaskan waters were also allowed to discharge in Washington state waters, over 90% of the cruise ships in the North Pacific market would qualify for continuous discharge and the proposed legislation would be redundant.

The proposal for legislation in Seattle did not move forward. Instead, an MOU was established in co-ordination with both local and federal governments in Seattle and Vancouver. The signing of an MOU indicated a level of trust between the officials in the two sites and representatives of the cruise ship corporations. Many ENGOs are concerned by this indication of trust and suspicious of the motivations for the cruise ship industry's corporate environmental policies. Pointing out that the cruise industry has been charged on several occasions with deliberately and illegally discharging sewage and bilge water into the marine environment, a representative of Oceans Advocates in Seattle expressed the view that this made self-regulation a dubious proposition: "Deliberate discharges prove that cruise companies are untrustworthy and as such cannot be trusted to self-regulate" (pers. comm., Oceans Advocates, June 23, 2003).

6.2.3 Legislation Influencing Corporate Decision and Stifling Innovation: The Case of Sydney

In Sydney — as in Juneau — early concern about the environmental quality of the harbour was brought to the public's attention in the 1980s through the efforts of ENGOs and local citizens. However, the concerns raised about Sydney were about the overall health of the harbour, not the specific impact of the cruise ship industry. A representative of Sydney Waterways expressed the view that Ian Kiernan's Clean Up the Harbour campaign "was the catalyst that brought the environmental health of the Harbour to the attention of Sydney's citizens" (pers. comm., Sydney Waterways, April 24, 2003).

While the no-discharge policy has significantly improved water quality in Sydney Harbour, it has also frustrated shipping agents for the cruise ship industry. In both Sydney and Hobart, shipping agents have primary responsibility for ensuring that cruise

ship operations adhere to site-specific laws and regulations. They organize a ship's entry into port and facilitate its use of local services. Sydney and Hobart's insistence on communicating only through shipping agents and not cruise ship industry representatives somewhat removes the industry from the interactions within the policy community.

Barwil Shipping is the main shipping agent in the Sydney Ports. According to a Barwil Shipping representative (pers. comm., April 4, 2003), Sydney Ports does not provide any incentives to ships for beyond-compliance environmental behaviour. Some ships travelling to Sydney have the newest and most advanced wastewater technologies, but they cannot use them in the harbour. While legislation in Sydney meets and in many cases exceeds international standards for environmentalism, the legislation's inability to keep up to date with new technologies is seen as stifling innovation and discouraging beyond-compliance behaviour (pers. comm., Barwil Shipping Agency, April 4, 2003). In Juneau, cruise vessels with advanced wastewater systems are certified to discharge continuously. In Sydney, those same vessels are restricted from using their state-of-the-art technologies.

Sydney Ports has argued that despite their ability to turn sewage and graywater into near-drinking-water quality, the new treatment systems produce excess nutrients (pers. comm., Sydney Waterways, April 24, 2003). The shipping agents counter that the new systems have become a financial liability, as ships with the advanced wastewater technology must cover the cost of installing and operating the systems but cannot use them and must pay an additional fee for sewage and graywater disposal. Not surprisingly, cruise companies have responded by deploying their older, less technologically advanced ships to Australia. Tables 20 and 21 present information on

ages of the ships that visited Sydney in the 2005-2006 season and Juneau in the 2006 season, based on the year each ship was built.

Table 20: Year Built, Cruise Ships Visiting Sydney, 2005-2006 Season

Cruise Ship	Cruise Ship Company	Year Built
Queen Mary II	Cunard Lines	2003
Black Watch	Fred Olsen Cruises	1972
Amsterdam	Holland America	2000
Statendam	Holland America Cruise Line	1993
Aurora	P&O Cruises	2000
Pacific Dawn	P&O Cruises	1997
Pacific Princess	P&O Cruises	1971
Pacific Sky	P&O Cruises	1984
Pacific Star	P&O Cruises	2002
Pacific Sun	P&O Cruises	1995
Regal Princess	Princess Cruise Lines	1991
Sapphire Princess	Princess Cruise Lines	2004
Oriana	P&O Cruises	1995
Seven Seas Mariner	Radisson Seven Seas Cruises	2001
Saga Ruby	Saga Holiday	1994
Average year		**1993**

Table 21: Year Built, Cruise Ships Visiting Juneau, 2006 Season

Cruise Ship	Cruise Ship Company	Year Built
Carnival Spirit	Carnival Cruise Lines	2001
Infinity	Celebrity Cruise Lines	2001
Mercury	Celebrity Cruise Lines	1997
Summit	Celebrity Cruise Lines	2001
Oosterdam	Holland America Cruise Line	2003
Ryndam	Holland America Cruise Line	1999
Statendam	Holland America Cruise Line	1993
Veendam	Holland America Cruise Line	1996
Volendam	Holland America Cruise Line	1999
Westerdam	Holland America Cruise Line	2004
Zuiderdam	Holland America Cruise Line	2002
Zanndam	Holland America Cruise Line	2000
Norwegian Sun	Norwegian Cruise Lines	2001
Norwegian Star	Norwegian Cruise Lines	2001
Norwegian Wind	Norwegian Cruise Lines	1993
Coral Princess	Princess Cruise Lines	2002
Dawn Princess	Princess Cruise Lines	1997
Diamond Princess	Princess Cruise Lines	2004
Sapphire Princess	Princess Cruise Lines	2004
Sun Princess	Princess Cruise Lines	1995
Seven Seas Mariner	Radisson Seven Seas Cruise Lines	2001
Radiance of the Seas	Royal Caribbean International	2001

Cruise Ship	Cruise Ship Company	Year Built
Serenade of the Seas	Royal Caribbean International	2003
Vision of the Seas	Royal Caribbean International	1997
Average		**2000**

Table 20 and Table 21 show that on average, ships visiting Sydney are seven years older than those visiting Juneau. The shipping companies argue that Sydney's unwillingness to change may actually be harming the environment by providing incentives to cruise companies to send their older ships to the area (pers. comm., Barwil Shipping Agency, April 4, 2003). The harbour regulations also act as disincentives to the adoption of advanced wastewater systems on ships. That is not to say that all legislation will stifle innovation, but when legislation or industry self-regulation does not correspond with the local context, including the context and advancement of the local industries it is likely to be problematic.

6.3 Conclusion

Cruise ship corporations are part of the environmental policy-making process, and their responses to environmentalism are affected by local characteristics and institutions. However, due to their internationality and mobility, they are affected by outside influences and by some policy communities more than others. Representatives of cruise ship corporations and their member lines must reconcile the environmental expectations of the industry, their passengers, their destinations' governments, and the ENGOs that serve as industry watchdogs.

This chapter demonstrates that there are many motivations for corporate environmentalism in the cruise ship industry. It equally illustrates that corporate responses depend on the combination of institutions in a site's policy community and the wider set of stakeholders and their expectations. The internet has allowed for increased ENGO pressure on the cruise industry from numerous global locations. Examining cruise ship corporations in local policy communities adds an element of scale, where larger corporate decisions and decisions made in one location and applied to others are incorporated in the local analysis. An understanding of the larger element of scale is facilitated by the comparative case study approach, which allows for an analysis of the larger corporate decisions and their impacts on specific locations, as well as the influence of local corporate decisions which are also applied in surrounding destinations.

This chapter also highlights the considerable debate regarding the appropriate mix of policy mechanisms that would invoke the most environmentally responsible behaviour and stimulate technological innovation. There are notable variations in environmental policy mechanisms governing the cruise industry and many views on the efficacy of environmental policies. Many questions exist regarding the cruise industry's commitment to good environmental management and the overall effectiveness of industry self-regulation. For example, the voluntary nature of self-regulation is considered a drawback by many ENGOs, and their history of deliberate discharges contributes to the industry's credibility problems.

When looking at cruise ships in the Alaskan cruise ship market, it appears that cruise ship companies have incorporated environmentalism into their decisions by developing effective voluntary regulations and have been moving beyond compliance

with new technologies. However, as the Sydney case demonstrates, the industry is highly pragmatic in its deployment of ships equipped with more advanced technologies, to the detriment of locations whose institutions are not pressing for higher standards (pers. comm., Barwil Shipping Agency, April 4, 2003).

This reality of the corporate mindset makes command and control mechanisms more necessary in some locations than others. However, self-regulation can still be useful in its ability to encourage technological innovation. Industry self-regulation has been seen as an effective policy option for locations that are making political decisions between the economy and the environment. Furthermore, some locations have little monitoring and enforcement capability and are unable to enforce command and control legislation. The research in this dissertation suggests that cruise ship industry representatives are aware of the decisions government departments have to make and do model their corporate policy decisions accordingly. For example, the awareness campaign in Vancouver, organized by Holland America, coincided with rising ENGO pressure for regulation and the federal government commissioned study to acquire more information on the cruise ship industry and its environmental impacts.

Some ENGOs and supranational organizations have challenged both the industry and the government's ability to regulate the cruise industry, and have turned to certification programs for third-party monitoring. Voluntary third-party certification by ENGOs for the cruise industry is in its infancy, but with more time and effort, it could be a valuable policy instrument for increased monitoring and enforcement.

The information in this chapter suggests that no single solution exists to promote effective and efficient environmental policy-making in the cruise ship industry sector in

all locations. For the cruise ship corporations' decision-making processes, the multiple local policy communities have made certain options or outcomes more attractive than others. It was also shown that appropriate policy-making is more complicated than a simple command and control versus self-regulation decisions, as either option could be considered an effective or ineffective policy option depending on how it fits with the local context. This chapter further highlights that some local policy communities influence corporate decisions, while some corporate level decisions influence the decisions of local governments and the broader local policy community's institutions. The comparative case studies help in making that distinction, as well as interpreting the wider implications.

The final chapter of this dissertation synthesizes the findings of Chapters 5 and 6 to highlight the contributions of this dissertation in strengthening the role of geographical analysis in environmental policy research.

CHAPTER 7: CONCLUSIONS AND KEY CONTRIBUTIONS

This dissertation explores the effects of the local environmental policy-making processes on the cruise ship industry to determine how the characteristics, events and institutions that are specific to a given place influence policy responses. In Chapter 2, public awareness and focusing events are identified as the key drivers of local environmental policy-making processes. Both of these key drivers are informed by local and wider influences and drive the formation of the policy community and structure the relationships between the institutions. The policy community itself is built around the framework of sustainable development, which serves to guide decision-making. The fieldwork undertaken for this dissertation demonstrates that each location's policy community is unique in the make-up of its institutions and the local and wider influences it experiences, yet interdependent. At the local level, the distinctiveness shapes the policy responses, however, local responses in one location can be perceived and understood in another location and thus contribute to their environmental policy-making process. Furthermore, based on the international nature of the corporations involved, an added element of scale was also introduced. The results demonstrate that activities or decisions in other policy communities can influence local policy responses as well as the effectiveness of the existing policy responses.

The comparative case studies in this dissertation reveal five key contributions that are of particular relevance to geography and the advancement of policy-oriented research. Each will be discussed in detail in the following five sections. The first contribution

focuses on the value of the comparative case study analysis to geographers conducting environmental policy-oriented research. Each policy community is unique because it is shaped by the interactions between institutions and the local surroundings, although it can be influenced by external factors. Therefore, an understanding of the environmental policy-making process requires a local analysis which is also cognizant of events and awareness levels in other locations. The use of comparative case studies highlights the limitations associated with employing a single case study.

The second contribution relates to the environmental policy-making process and the relationship between local awareness and focusing events. Both local awareness and focusing events played key roles in the formation and mobilization of local policy communities, but these roles differed based on characteristics of each location. Therefore, it is difficult to discuss the role of local awareness and focusing events in shaping policy communities in absolute terms. An understanding of the unique roles of local awareness and focusing events builds on current literature on policy communities and highlights potential new areas of study for geographers.

The third contribution of this dissertation relates to the cruise ship industry and its relevance to oceans governance and integrated management. The cruise ship industry is often subject to polarizing debates, and this dissertation provides a rare neutral view of the cruise ship industry and the variables which affect the formation of its environmental policies.

The fourth contribution of this dissertation is toward the current literature describing the function and evolution of policy communities in the environmental policy-making process. Achieving sustainable development has promoted horizontal efforts for

integrated management, increasing dialogue between the institutions of a policy community through consensus-building and consultation. Cicin-Sain and Knetch (1998) observe that integrated management, particularly for ocean and coastal uses, is management that acknowledges the interrelationships among institutions and the environments they affect. Significant dialogue between the institutions was observed in Juneau, Vancouver and Seattle suggesting that policy communities are becoming increasingly important for achieving sustainable development.

The final contribution relates to the lessons learned from the empirical study, which could be used to inform environmental policy-making processes in other sectors. The analysis of institutions in different locations highlighted the importance of local politics in the environmental policy-making process and the knowledge gained from the case studies presents options which can be used by different institutions or policy communities when making trade-offs for sustainability.

7.1 The Value of Comparative Case Studies

Case studies are a valuable tool for geographic research because they provide the detail required to make sense of local perceptions and issues (James, 2006). However, the use of single case studies has been criticized within the field of economic geography based on the concern that the selected sites will support pre-existing theories instead of challenging them (Martin and Sunley, 2001; Markusen, 2003). Comparative studies help to isolate commonalities and differences based on scenarios or locations, but lack the qualitative component of the case study. The combination of case study approaches and comparative analysis draws on the flexibility of the former together with the rigourous

analysis provided by the latter. Therefore, comparative case studies avoid the isolation of most case study analyses and the lack of detail of most comparative methods.

The recent tendency of economic geographers to replace multiple site comparative case studies with single case studies has been noted by Markusen (2003) and James (2006). Given the absence of policy research in economic geography and the recent shift in preference to single case studies, the use of the comparative case study has rarely been employed to study policy-making processes. In this dissertation, the use of comparative case studies to examine policy-making enables a better understanding of the process, which will assist geographers in responding to the calls of Hudson (2003), Martin (2001), Markusen (2003) and Peck (2003), to inform and shape the policy process and improve the outcomes.

For geographers, the comparative case study analysis can assist in displaying the world as persistently diverse based on multi-scale relations beginning at the local level. This persistent diversity is driven by activities within and between institutions. James (2006) notes that comparative case studies allow researchers "to investigate the working out of causal processes or tendencies in different contexts, settings and situations" (295). By examining the relationships, processes and institutions that give rise to the circumstances in multiple locations, the researcher is better positioned to distinguish local specificities from more general structures, thereby increasing the potential transfer of lessons learned to other settings (James, 2006).

The comparative case study approach employed in this dissertation reveals the importance of the local level in the environmental policy-making process, while also highlighting how the international nature of the cruise ship industry allowed the *same*

corporate environmental policy response to appear positive and responsible in some locations and negative and deliberate in others. First, when the research questions were designed for this dissertation, it was expected that a variety of influences from the local to the international scale would affect the environmental policy-making process, and that these effects would be distinct based on the location. The comparative case studies reveal the prominence of local level effects on the environmental policy-making process and in influencing policy responses. Each location is affected directly or indirectly by international, federal and regional influences, usually based on how these influences are interpreted by the institutions at the local level. The wider influences are observed by local institutions and inherently understood in relation to local influences and characteristics of place.

For example, it was demonstrated in Chapter 4 that, although international guidelines have been recommended by MARPOL for sewage emissions, only some countries have agreed to follow them. Australia has ratified MARPOL's Annex IV regarding sewage emissions from ships and Sydney has strict methods to ensure compliance from all ships. Conversely, Hobart recognizes that Australia has ratified the Annex, but it has not taken measures to enforce it due to its own economic constraints.

Second, the use of multiple case studies in this dissertation also revealed how local environmental policy decisions in one location can affect the motivations and environmental responses of cruise ship corporations. This highlights the ability of the cruise industry to participate in a local policy community and influence policy responses, while simultaneously making trade-offs at the global level to respond to their markets. Cruise ship corporations were very involved in Juneau's policy community when the

issue of regulation for sewage and graywater was being considered, with cruise ship representatives stationed in the city and communicating with the Governor and the Senator of Alaska. In response to the activity in Juneau, the cruise ship industry developed new environmental policies and new wastewater treatment technologies to move beyond compliance with the existing laws. The comparative case studies revealed other motivations for the cruise ship industry's heightened environmental concern, including the desire to avoid stricter legislation in Vancouver and Seattle.

If the Sydney case study had not been included, it may not have been observed that the cruise ship corporations' beyond compliance behaviour was distinct to the Northern Pacific cruise ship market. The corporate decision to deploy newer, more environmentally safe ships in one market, while sending the older ones to other markets was a wise business decision, since ports such as Sydney's do not allow the ship's new wastewater technologies to be used in their harbours.

Furthermore, the comparative case studies revealed some corporate motivations that a single case study would not have considered. The environmental policies and corporate decisions of cruise ship corporations confirm Banerjee's (2001) study of managerial perceptions of corporate environmentalism in which he concluded that the pervasive motivation for corporate environmentalism was a company's bottom line. By catering to the policy community in Juneau the cruise ship companies were able to continue to operate and thrive in that market. The mobility of the cruise ships and their regular visits made them a visible corporation in the community and allowed cruise ship representatives to act as members of the local policy communities and influence the

environmental policy-making process. At the same time, their internationality allowed them to consider multiple policy communities in the development of corporate responses.

7.2 The Role of Local Awareness and Focusing Events

The data collected for this dissertation demonstrates the tremendous potential impact that local awareness and focusing events can have on policy, regulation and industry behaviour, while simultaneously providing examples where similar levels of local awareness or focusing events did nothing to change the policies or the status quo. In the locations studied, the local awareness of cruise ship wastewaters arose from the confluence of local focusing events and the presence of local and wider influences and institutions. In all cases, no mathematical formula would have been able to determine how much each of the factors influenced the outcome. The local focusing events were unpredictable in both their timing and their impacts on local awareness.

In Seattle, the 2003 sewage spill was preceded by an earthquake in 2001. The earthquake turned out to be a much larger focusing event than the spill, and created an economic situation that required strong and careful decision-making by the city's government at that time. Although environmental groups have a presence in Seattle and there was strong reaction to the sewage spill, the opposition at that time was not strong enough for new cruise ship legislation to be introduced. If the sewage spill had happened at a different time, or if the port and airport's budgets were not tied together, it is possible that the policy outcome would have been different.

Therefore it becomes difficult to base any hypothesis or conclusion about the environmental policy-making process based on the local awareness or a local focusing

event. It is, however, impossible to exclude the influence of both factors from an analysis of the environmental policy-making process or the formation of policy communities. As Martin (2000) observes, consensual approaches to institutional adaptation can occur, although the majority of change stems from a crisis, controversy or a conflict between groups.

The focus of this dissertation on the environmental policy-making process and its inherent inclusion of the principles of sustainable development complicated the analysis of the impact of local awareness and focusing events. Local trade-offs for sustainability highlights the ability of institutions to use various means and media to alter the perception of events to pursue their objectives. Birkland and Nath (2001) and McConnell (2003) discuss how institutions can perceive or exaggerate events to pursue an agenda. In Juneau, Governor Knowles, by passing legislation to regulate the cruise ship industry's emissions of sewage and graywater, created the perception that the environment was one of his main priorities by diverting attention away from the environmental degradation occurring in the process of drilling for oil in Alaskan waters.

More studies focusing on the links between local environmental awareness, focusing events and local politics would contribute significantly to the field of environmental geography and policy-making, particularly given the increasing global emphasis on environmental concerns. An even more compelling study might discuss the factors that can hinder local environmental awareness and focusing events from having any policy-making effect.

Lodge and Hood (2002) use the term 'selective responses' to explain how government decision-makers can use or distort the characteristics of a situation to pursue

a desired agenda. The findings in this dissertation suggest that selective responses are used by all institutions. More studies on the selective responses of all institutions in the environmental policy-making process could be combined with Martin (2001), Birkland and Nath (2001) and McConnell's (2003) research on crisis and focusing events to demonstrate the trade-offs inherent in local politics. The need to make trade-offs to achieve sustainability can lead institutions to downplay certain focusing events and crises in order to avoid making an institutional adaptation. From a geographical perspective, it would be more effective to examine the influence of local awareness and local focusing events on a case by case basis in order to isolate the location, its institutions and the local responses and gain a better view of the larger picture.

7.3 The Cruise Ship Industry, Oceans Governance and Integrated Management

This dissertation sought to provide an objective view of the cruise ship industry and its environmental policies. This academic analysis did not look at the state of the environment in the six locations to provide recommendations for appropriate sewage and graywater emissions, but instead focused on the process of environmental policy-making. The focus on the policy environment provides a rare neutral look at an industry filled with countervailing institutions seeking media and marketing opportunities to deliver self-serving messages.

The wastewater emissions of the cruise ship industry are popular topics among American and Canadian ENGOs. While ENGOs claim the industry is untrustworthy and dump wastewaters purposefully, the innovation and new wastewater treatment systems adopted by many ships exceeds even the highest environmental standards. The research

questions for this dissertation did not propose reconciling this environmental debate to select appropriate policy responses. The outspoken views of the ENGOs and the claims of corporate environmentalism by the industry may or may not be accurate, but the interaction of the two dialogues affects how the policy community will form and how communications will flow between the institutions.

The cruise ship industry's policy communities and the varied local regulatory environments which the ships frequent reveal many significant challenges for oceans governance for shipping and other economic activities including, fishing, mining and tourism (Vallejo, 1994). Currently, oceans governance and integrated management for the oceans is vague, and legislation and monitoring are sparse at best. Not only are there many institutions with vested interests or ocean mandates in any given location for each economic activity, but there are also overlapping jurisdictions which cross local, regional, national and international borders (Vallejo, 1994). Collaborations, compromises and pressure tactics become increasingly important in locations with multiple economic activities and institutions with varying goals. Given the absence of many scientific environmental studies of oceans, ocean governance requires a particularly in depth understanding of the environmental policy-making process.

In reference to oceans governance, Ettinger et al., (1994) point to the need to horizontally integrate sectoral institutions that tend to work independently of one another, as well as the need to vertically integrate regional, national and global institutions. Integrated management for ocean resources provides more complex challenges, as interactions will occur within many policy communities in the same location. For example, there are policy communities for fishing, tourism, offshore oil and gas and

aquaculture which all exist in the same location. Some actors will be present in numerous policy communities, while others will have specific interests focused on a given activity or goal. Reconciling the many institutional perceptions within overlapping policy communities will be challenging and will eventually require a scaling up to include other policy communities in neighbouring locations. The comparative case studies in this dissertation have contributed to future integrated management efforts by emphasizing understanding at the local level to first identify the many facets involved in the environment policy-making process that can manifest in local communities in a variety of ways. By understanding how the process works and evolves, the appropriate policy communities for future integrated management will be identified, wider frameworks will be formed, and policy community mapping on larger, more regional scales can begin.

7.4 The Formation of Policy Communities

In this dissertation, policy communities were viewed as a set of public and private institutions, which coalesce around an issue and share a common interest in shaping its development (Coleman and Perl, 1999). The formation of a policy community creates relationships between institutions as they attempt to reconcile often conflicting motives through dialogue and calculated compromises involving local environments and economies (Wilks and Wright, 1987). Depending on place, policy communities can be made up of specific institutions and are shaped by the mandates those institutions' pursue. This dissertation reveals that the way individuals in local institutions understand the broader context affects the relationships and collaborations they seek within the policy community.

Literature on policy communities is not new. Börzel (1997), Coleman and Perl (1999) and Lindquist (2001) have all looked at policy communities and how they encompass all of the institutions that influence or have an interest in policy formation for a particular issue or industry in a geographical location. It was a commonly held assumption by these researchers that the policy communities are based predominantly on informal interactions and are not structured or formalized entities. The research of this dissertation on policy communities corresponds with those initial assumptions, but reveals a potential emerging trend that could contribute to further research on the policy community, its formation and its influences on the environmental policy-making process.

Increased consultation to achieve sustainable development objectives and integrated management are bringing the various institutions in policy communities into closer contact on a regular basis. This creates familiarization and dialogue in some locations, and is leading to more formal relationships between some institutions. In Juneau, Vancouver and Seattle, it was observed that the same institutions were called and consulted on most issues pertaining to the cruise ship industry.

In Vancouver there has been an attempt by the federal government to recognize which institutions are directly and indirectly involved with the cruise ship industry and a desire to legitimize the grouping for decision-making related to the cruise ship industry (pers. comm., Fisheries and Oceans Canada, September 8, 2003). The initial effort was started by Fisheries and Oceans Canada and began with the creation of a list of all the institutions interested in the cruise industry. Fisheries and Oceans Canada also worked directly with the NWCA, local ENGOs, academics and First Nations representatives to create a consultation process for cruise ship decision-making (pers. comm., Fisheries and

Oceans Canada, September 8, 2003). Similar processes have begun in Juneau and Seattle but were initiated by different institutions. In Juneau, the effort to create a cruise ship network was initiated by the state department ADEC, while Seattle's effort was started by the ENGO People for Puget Sound (pers. comm., ADEC, July 15, 2003; pers. comm. People for Puget Sound, June 25, 2003).

Although some ENGOs did not agree to participate in Vancouver's consultation process, the networking between various institutions suggests that the perception of a lack of structure and formality in the traditional policy community may be evolving. There is currently an increasingly strong emphasis being placed on integrated management and horizontality in policy formation, which is creating formalized entities of institutions that self-identify as communities or networks.

These types of affiliations foreshadow an era of increased communication within policy communities. This is particularly important for environmental resources where the location under study exists within larger ecosystems which experience substantial wider influences. This may represent an important first step in collaborations for local and regional development where the link between policy communities and potential socio-economic clusters can be further explored. Studying this pattern will contribute to the current literature on policy communities and specifically on the work of Börzel (1997), Coleman and Perl (1999) and Lindquist (2001).

7.5 Lessons Learned from the Empirical Analysis and their Implications

From an applied perspective, a geographical analysis of local environmental policy-making processes can provide insights into the specific characteristics of place that are

important to decision-makers when determining their policy responses. The information gathered from the six sites in this dissertation can be examined by geographers and policy makers to provide advice or insights into how institutions can influence policy responses in their local environments and/or play a role in their policy communities.

Hudson (2003), Martin (2001), Markusen (2003), and Peck (2003) have all remarked on the absence of policy research in human geography and the missed opportunity for geographers to inform and shape the policy-making process. The data gathered in this dissertation provides evidence that a geographical analysis of policy-making processes at the local level can further environmental policy research and advice. The analysis of local politics embedded in local efforts to achieve sustainability highlights how the specific characteristics of place shape the environmental policy-making process. More directed studies linking geographical knowledge to aspects of environmental policy formation and policy implementation will better position geographers to provide effective and efficient policy advice to decision-makers.

Liverman (1999) notes that the inherent sensitivity to processes occurring at different scales is a key strength that geographers bring to environmental analyses. Applied examples allow geographers to link local experiences with potential best practices and thus play a more pertinent role in informing policy-makers. The insights into which environmental policy mechanisms have been tried, have been successful and the conditions under which those successes have occurred can be useful to policy-makers at the local, national and international scales. Insights can be provided as to which sorts of policy collaborations, agreements, conflicts or interventions are most likely to succeed given the location and make up of the policy community.

In Juneau the local politics had a tremendous influence over the policy-making process, feeding into the federal and state legislation regulating cruise ship sewage and graywater discharges. Lodge (2003) explains that government policy decisions are rarely neat, since the 'right' solution may not be the most appropriate. Through an examination of the institutions that focus on mediating human/environment relationships environmental geographers can further the understanding of local politics by continuing to study how perceptions, trade-offs and collaborations can lead to the 'right' policy solution in a given time and place.

The use of trade-offs is of significant concern among institutions, particularly at the government level, and greatly affects which policy mechanisms or responses are employed. A great deal can be learned and communicated from local bargaining, compromise, advocacy and collaborative experiences for sustainability, which can provide valuable information to policy communities on how best to work toward their objective or avoid a less than favourable outcome. In Hobart, Prince Rupert and Seattle, the desire to sustain the economy played a significant role in the way the cruise ship industry was regulated. In all three locations, the cruise industry was promoted in an effort to balance a downturn in another economic activity area. The focus of geographers on place and space give them a unique ability to see a location in its entirety, including the ways in which the economy, society and environment are intertwined. This positions geographers well to assist in making sense of local politics and the trade-offs that are made for sustainability. Understanding local politics helps define which policy mechanisms are most appropriate for certain locations given the dynamics of place. A desired objective could have the opposite impact than expected if pursued without

understanding the wider and local influences. It also highlights the importance of addressing all the traditional priorities of sustainable development regardless of whether one dominates the decision-making processes at a particular time.

There is no guarantee that emulating another institution's actions or tactics will result in the same policy outcome, but empirical examples provide options such as specific strategic planning approaches or integrated management techniques. An added benefit of having multiple case studies is that they provide more examples of what has or has not worked in particular places and why. Continued research by geographers to gather more empirical examples of how place-specific characteristics, events and institutions influence policy responses will contribute to a larger tool box of experiences to draw on when providing policy advice to decision-makers.

7.6 Conclusions

In an era of globalization and increased flows of information, communication and technology, it is natural to look to the macro perspective of environmental policy-making processes and generalize about the influences they have on local environments. However, this examination of the cruise ship industry and the environmental policy-making processes for sewage and graywater emissions reveals that environmental policy-making processes should not be generalized, nor can the behaviour of institutions in policy communities. Environmental awareness can develop and influence policy decisions on a global scale, but the institutional behaviours that result from awareness occur at the local level. Local awareness and focusing events can either develop or mobilize a policy community, and local institutions will dialogue to determine the 'right' public, corporate and ENGO policy response for the location. Cruise ship corporations

can enter local policy communities to dialogue about the potential policy responses, as well as have their own dialogues over the 'right' corporate policy responses based on different objectives.

This dissertation has shown that the environmental policy-making process is influenced by many different variables. In particular local politics and corporate motivations are important as is the role of leadership within institutions, the influences of the media, and the prominence of economic concerns all of which vary according to place. The nature of those influences cannot be assumed in advance or deduced based on current trends or general patterns, but must be examined and studied at the local level. There are many individual lessons to be learned from examining the process of environmental policy-making in a specific place based on its characteristics and institutions. The development of effective environmental action will come from communicating a better understanding of the environmental policy-making process to better inform the structuring of policy responses.

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APPENDIX A: LIST OF INTERVIEWS BY INSTITUTION AND DATE

Site	Institution	Type of Institution	Date
Hobart, Tasmania	Tasmania Conservation Trust	ENGO	Jan. 23, 2003
	Parks and Wildlife	State Government	Jan. 24, 2003
	Cruise Tasmania	State Government	Jan. 30, 2003
	Marine and Safety Tasmania	State Government	Feb. 7, 2003
	Department of Primary Industries, Water and the Environment	State Government	Feb. 10, 2003
	Office of Antarctic Affairs	State Government	Feb. 24, 2003
	Australian Antarctic Division	State Government	Feb. 25, 2003
	Tourism Tasmania	State Government	Feb. 20, 2003
	Hobart Ports	Private Industry	Mar. 6, 2003
	Tigerline Travel Tasmania	Private Industry	Mar, 7, 2003
	Australian Customs Service	State Government	Mar, 10, 2003
	Quarantine Tasmania	State	Mar. 14, 2003

Site	Institution	Type of Institution	Date
		Government	
	Beaufort Shipping Agency	Private Industry	Mar. 23, 2003
Sydney, New South Wales	Australian Maritime Safety Authority	Federal Government	Mar. 27, 2003
	Great Barrier Reef Marine Park	State Government	Mar. 27, 2003
	Environment Australia	State Government	Mar. 28, 2003
	Carnival Cruise Lines	Private Industry	Apr. 3, 2003
	Barwil Shipping Agency	Private Industry	Apr. 7, 2003
	Southern Cross University	Academia	Apr. 8, 2003
	Environmental Protection Agency – Sydney Region	Federal Government	Apr. 14, 2003
	Waterways Authority	State Government	Apr. 16, 2003
	Sydney Water	State Government	Apr. 17, 2003
	Sydney Ports	Private Industry	Apr. 18, 2003
	Department of Sustainable Natural Resources	State Government	Apr. 22, 2003
Prince Rupert, British Columbia	Prince Rupert Port Authority - Cruise Ship Infrastructure	Provincial Government	Sep. 2, 2003
	King Pacific Lodge	Private Industry	Sep. 2, 2003

Site	Institution	Type of Institution	Date
	Tourism Prince Rupert	Provincial Government	Sep. 3, 2003
	Prince Rupert Port Authority	Federal Government	Sep. 4, 2003
	Tsimshian Tribal Commission	NGO	Sep. 5, 2003
	Community Centre	NGO	Sep. 5, 2003
Vancouver, British Columbia	Oceans Blue	ENGO	Mar. 27, 2002
	West Coast Environmental Law	ENGO	Jun. 7, 2002
	BC Ministry of Sustainable Resources Management	Provincial Government	Nov. 8, 2002
	Western Economic Diversification	Federal Government	Nov. 23, 2002
	BC Ministry of Competition and Small Business	Provincial Government	Dec. 5, 2002
	Fisheries and Oceans Canada	Federal Government	Sep. 8, 2003
	Port Vancouver	Federal Government	Oct. 7, 2003.
	North West Cruise Ship Association	Industry	Oct. 15, 2003
	Parks Canada	Federal Government	Oct. 21, 2003
	Environment Canada	Federal Government	Feb. 10, 2004
	Transport Canada	Federal Government	Jul. 14, 2004

Site	Institution	Type of Institution	Date
Seattle, Washington	Princess Cruise Lines	Private Industry	Jun. 18, 2003
	Ocean Advocates	ENGO	Jun. 23, 2003
	Washington State Department of Ecology	State Government	Jun. 24, 2003
	Environmental Protection Agency	Federal Government	Jun. 25, 2003
	People for Puget Sound	ENGO	Jun. 25, 2003
	Port of Seattle	Municipal body	Jun. 25, 2003
	Coast Guard Pacific Northwest	Federal Government	Jun. 26, 2003
Juneau, Alaska	Alaskan Department of Environmental Conservation	State Government	Jul. 15, 2003
	United States Coast Guard	Federal Government	Jul. 15, 2003
	Environmental Protection Agency	Federal Government	Jul. 16, 2003
	Royal Caribbean Cruise Lines	Industry	Jul. 16, 2003
	Oceana	ENGO	Jul. 17, 2003
	Alaska State Representative	State Government	Jul. 17, 2003
	Earth Island Institute	ENGO	Jul. 18, 2003

APPENDIX B: LIST OF CRUISE SHIPS AND CRUISE SHIP CORPORATIONS FOR 2004 BY DESTINATION

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
A			
A"Rosa Blu, A`Rosa Cruises/Seetours	1910	1990/2002	Caribbean, Mediterranean
Adonia, A`Rosa Cruises/Seetours	2272	1998/2003	Worldwide
Adventure of the Seas, RCI	3838	2001	Caribbean
Aegan 1, Golden Star Cruises	682	1974/2002	Aegean Sea
AIDAaura, Aida Cruises/Seetours	1582	2003	Caribbean, Mediterranean
AIDAcara, Aida Cruises/ Seetours	1230	1996	Canary Islands, Mediterranean
AIDAvita, Aida Cruises/ Seetours	1582	2002	Caribbean, Mediterranean
Albatros, Phoenix Seereisen	1571	1957/1993	Caribbean
Amsterdam, HA	1653	2000	Caribbean, Australia, HA
Astor, Transocean Tours ?	650	1987/1997	Worldwide
Astoria, Transocean Tours	618	1981/2002	Worldwide
Asuka	618	1991	Worldwide,

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
			Southeast Asia, South Pacific.
Atalante, Paradise Cruises	705	1953/1992	Cyprus, Egypt, Israel
Aurora, PCL	1975	2000	Worldwide, Australia
Ausonia, Louis Cruise Lines	701	1957/1998	Mediterranean
Azur, Festival Cruises	850	1971/1994	Mediterranean
B			
Black Watch, Fred Olsen Cruise Lines	843	1972/1996	Baltic, Black Sea, Russia
Bolero, Spanish Cruise Line	984	1968/2001	Mediterranean
Brilliance of the Seas, RCI	2500	2002	Caribbean
C			
Calypso	596	1968/2000	Greek Islands?
Carnival Conquest, CCL	3700	2002	Caribbean
Carnival Destiny, CCL	3400	1996	Eastern USA/ Canada, Bahamas, Caribbean
Carnival Glory, CCL	3700	2003	Caribbean
Carnival Legend, CCL	2680	2002	Bermuda, USA/ Canada, Caribbean
Carnival Miracle, CCL	2680	2004	Caribbean

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Carnival Pride, CCL	2680	2002	Caribbean
Carnival Spirit, CCL	2680	2001	Alaska, Caribbean
Carnival Triumph, CCL	3473	1999	Caribbean
Carnival Victory, CCL	3473	2000	Eastern USA/Canada, Bahamas, Caribbean
Caronia, CCL	732	1973/1984	Saga Cruises
Carousel, Sun Cruises/My Travel	1158	1971/1995	Mediterranean
Celebration, CCL	1896	1987	Caribbean
Century, Sun Cruises/My Travel	2150	1995	Caribbean
Constellation, CeCL	2450	2002	Eastern USA/ Canada, Bahamas, Caribbean, Northern Europe
Coral Princess, PCL	2590	2002	Caribbean
Costa Allegra, Costa Cruises	1072	1992	Europe, South America
Costa Atlantica, Costa Cruises	2680	2000	Caribbean- Eastern
Costa Classica, Costa Cruises	1766	1992	Mediterranean
Costa Europa, Costa Cruises	1744	1986/2002	Europe-Western, Mediterranean
Costa Fortuna, Costa Cruises	3470	2003	Caribbean, Europe,

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
			Mediterranean
Costa Marina, Costa Cruises	1005	1990	Caribbean, Europe
Costa Mediterranea, Costa Cruises	2680	2003	Mediterranean-Eastern
Costa Romantica, Costa Cruises	1779	1993	Europe, Mediterranean
Costa Tropicala, Costa Cruises	1412	1982/2001	Europe
Costa Victoria, Costa Cruises	2464	1996	Caribbean
Crown, Mare Nostrum Cruises	1150	1973/2003	Unknown
Crystal Harmony, Crystal Cruises	1010	1990	Worldwide
Crystal Serenity, Crystal Cruises	1100	2003	Worldwide
Crystal Symphony, Crystal Cruises	1010	1995	Worldwide
D			
Dawn Princess, PCL	2250	1997	Alaska
Delphin Renaissance, Delphin Seeriesen	777	2000/2003	Mediterranean, Baltic, Asia, Greek Isles
Deutshland, Peter Deilmann Reederei	513	1998	Mediterranean
Diamond Princess, PCL	3100	2004	Mexican Riviera, Australia

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Discovery, Discovery Cruise Lines	717	1972/2003	Bahamas
Disney Magic, Disney Cruise Line	3325	1998	Eastern Caribbean, Bahamas
Disney Wonder, Disney Cruise Line	3325	1999	Bahamas
E			
Ecstasy, CCL	2594	1991	Caribbean
Elation, CCL	2594	1998	Mexican Riviera
Enchantment of the Seas, RCI	2446	1997	Caribbean
European Stars, Festival Cruises	2223	2002	Greek Islands, Mediterranean
European Vision, Festival Cruises	2223	2001	Caribbean - Eastern
Explorer of the Seas, RCI	3840	2000	Caribbean
F			
Fantasy, CCL	2634	1990	Bahamas
Fascination, CCL	2634	1994	Bahamas, Caribbean
Flamenco, Festival Cruises	987	1972/1997	Caribbean - Western
Fuji Maru, Mitsui OSK Passenger Line	603	1989	Asia
Funchal, Classic International	524	1961/1989	Mediterranean,

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Cruises			Caribbean
G			
Galaxy, CeCL	2681	1996	Caribbean, Mediterranean
Golden Princess, Princess Cruises,	3100	2001	Caribbean
Grand Princess, PCL	3100	1998	Caribbean
Grandeur of the Seas, RCI	2446	1996	Eastern USA Mediterranean, Caribbean
H			
Holiday, CCL	1800	1985	Mexico, Caribbean
Horizon, CeCL	1660	1990	Bermuda, Caribbean
I			
Imagination, CCL	2634	1995	Caribbean
Infinity, CeCL	2450	2001	Alaska, Panama Canal, South America, Hawaii
Inspiration, CCL	2634	1996	Caribbean
Island Escape, Island Cruises	1863	1982/2002	Mediterranean
Island Princess, Princess Cruises	2590	2003	Alaska, World Cruise, Middle East, Africa, Mediterranean, Western Europe,

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
			British Isles
J			
Jubilee, CCL	1896	1986	Western Caribbean
L			
Legend of the Seas, RCI	2076	1995	Europe, Mediterranean, Scandinavia
Lirica, MSC Italian Cruises	2065	2003	Caribbean, Mediterranean
M			
Maasdam, HA	1627	1993	Caribbean, Alaska
Majesty of the Seas, RCI	2744	1992	Bahamas
Marco Polo, Orient Lines	915	1966/1993	South America, Antarctic, South Pacific, India, South Africa, Mediterranean
Mariner of the Seas, RCI	3840	2004	Caribbean
Maxim Gorkiy, Phoenix Seeriesen	650	1969/1974	Europe
Melody, MSC Italian Cruises	1600	1982/1997	Mediterranean, transAtlantic, Caribbean
Mercury, CeCL	2681	1997	Alaska, Mexican Riviera

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Millennium, CeCL	2450	2000	Europe, Caribbean
Minerva II, Swan Hellenic Cruises	838	2001/2003	Mediterranean, Black Seas, Middle East, Asia
Mistral, Festival Cruises	1715	1999	Caribbean, Mediterranean
Mona Lisa, Holiday Cruises	778	1966/2002	Europe
Monarch of the Seas, RCI	2744	1991	Caribbean
Monterey, MSC Italian Cruises	638	1952/1988	Mediterranean, Africa, Indian Oceans
N			
Navigator of the Seas, RCI	3840	2003	Caribbean
Nippon Maru, Mitsui OSK Passenger Line	607	1990	Japan, Western Canada
Noordam, HA	1350	1984	Caribbean, Alaska
Nordic Empress, RCI	2020	1990	Bermuda
Norway, Star Cruises	2370	1962/2001	Norwegian, International
Norwegian Dawn, NCL	4080	2002	Caribbean
Norwegian Dream, NCL	2156	1992	Alaska, Hawaii, Mexican Riviera
Norwegian Majesty, NCL	1790	1992/1997	Mexico, Bahamas, Bermuda

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Norwegian Sea, NCL	1798	1988	Caribbean
Norwegian Sky, NCL	2450	1999	Caribbean
Norwegian Star, NCL	4080	2001	Hawaii
Norwegian Sun, NCL	2400	2001	Canada/Eastern USA, Caribbean
Norwegian Wind, NCL	2156	1993	Alaska, Caribbean
O			
Ocean Majesty, Majestic International Cruises/Page and Moy	621	1966/1994	Aegean, Mediterranean, Northern Europe, Baltic
Ocean Village Ocean Village,	1692	1987/2003	Caribbean, Mediterranean
Oceana, PCL	2272	2000/2002	Alaska, Caribbean, Panama Canal, Mexico
Oceanic, Pullmantur Cruises	1800	1965/2001	Mediterranean
Olympia Countess, Royal Olympia Cruises	959	1976/1998	Mediterranean
Olympia Explorer, Royal Olympia Cruises	920	2001	Mediterranean
Olympia Voyager, Royal Olympia Cruises	920	2000	Mediterranean
Oosterdam, HA	2272	2003	Caribbean

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Oriana, PCL	1975	1995	Worldwide, Australia
Orient Venus, Venus Cruise	606	1990	Asia
P			
Pacific Princess, PCL	826	1999/2002	Alaska, Australia
Pacific Sky, PCL	1550	1984/2000	Australia
Pacific Venus, Venus Cruise	720	1998	Worldwide
Paradise, CCL	2594	1998	Caribbean
Pride of America, NCL	2440	2004	Hawaii
Princesa Cypria, Louis Cruise Lines	633	1968/1989	Greek Islands, Mediterranean
Princesa Marissa, Louis Cruise Lines	839	1966/1987	Egypt
Princesa Victoria, Louis Cruise Lines	750	1936/1993	Egypt
Princess Danae, Classic International Cruises	670	1955/1997	Caribbean, Mediterranean
Prinsedam, HA	840	1988/2002	Worldwide
Q			
Queen Elizabeth 2, CL	1906	1969	Transatlantic, Mediterranean, Eastern USA, Australia
Queen Mary 2, CL	3090	2004	Transatlantic,

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
			Mediterranean, Eastern USA, Australia
R			
Radiance of the Seas, RCI	2500	2001	West Coast, Alaska, Hawaii
Regal Empress, Imperial Majesty Cruise Line	1068	1953/1993	Nassau, Bahamas
Regal Princess, PCL	1910	1991	Alaska, Mexico, Panama Canal, Hawaii, Tahiti
Regatta, Oceanic Cruises	824	1998/2003	Transcanal
Rhapsody, MSC Italian Cruises	959	1977/1995	Mediterranean, TransAtlantic, South America
Rotterdam, HA	1668	1997	Canada, New England, Caribbean
Royal Princess, PCL	1275	1984	Eastern USA/ Canada, South America, Mediterranean, Scandinavia, Russia, Baltic Sea
S			
Saga Rose, Saga Cruises	620	1965/1997	World
Sapphire, Louis Cruise Lines	650	1967/1996	Egypt, Greek Islands

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Seawing, Sun Cruises/My Travel/ Louis Cruise Lines	926	1971/1995	Aegean Sea, Mediterranean, Canary Islands
Sensation, CCL	2594	1993	Caribbean
Serenade, Louis Cruise Lines	739	1957/1999	Mediterranean
Serenade of the Seas, RCI	2500	2003	Canada, Eastern USA, Alaska, Caribbean
Seven Seas Mariner, RSSC	752	2001	Caribbean, Mediterranean
Seven Seas Navigator, RSSC	530	1999	Caribbean, Mediterranean
Seven Seas Voyager, RSSC	752	2003	Caribbean, Mediterranean
Sovereign of the Seas, RCI	2852	1988	Bahamas
Splendour of the Seas, RCI	2064	1996	Europe, Caribbean
Star Pisces, Star Cruises	1900	1990	Asia
Star Princess, Princess Cruises, HA	3102	2002	Alaska, Australia, New Zealand, Canada, Mexican Riviera, South America,
Statendam, HA	1627	1993	Caribbean, Alaska, Australia
Stella Solaris, Royal Olympia Cruises	700	1953/1973	Greek Islands, Turkey

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
Summit, CeCL	2450	2001	Alaska, Hawaii, Caribbean
Sunbird, Sun Cruises/My Travel	1611	1982/1999	Western Mediterranean
Sundream, Sun Cruises/My Travel	1257	1970/1997	Europe, Mediterranean
Sun Princess, PCL	2250	1995	Caribbean
Superstar Aries, Star Cruises	1006	1982/1999	Thailand, China
Superstar Capricorn, Star Cruises	1430	1973/2001	Southeast Asia
Superstar Gemini, Star Cruises	900	1992/1995	Andaman Sea
Superstar Leo, Star Cruises	2475	1998	Southeast Asia
Superstar Virgo, Star Cruises	2800	1999	Asia
T			
Tahitian Princess, PCL	826	1999/2002	Tahiti, South Pacific
The Emerald, Louis Cruise Lines	1198	1958/1997	Mediterranean
The Iris, Mano Maritime	750	1982/2001	Mediterranean
The Jasmine, Mano Maritime	750	1981/2002	Far East
Thomson Spirit, Louis Cruise Lines	1350	1983/2002	Baltic
Triton, Royal Olympia Cruises	945	1971/1992	Greek Islands, Mediterranean

Cruise Ships and Cruise Ship Corporations (2004)	Passenger Capacity (all berths)	Year Built or Refurbished	Destination
V			
Van Gogh, Van Gogh Cruise Line Ltd	795	1975/1999	Scandinavia Caribbean, Mediterranean
Veendam, HA	1627	1996	Eastern USA/ Canada, Caribbean
Vision of the Seas, RCI	2435	1998	Alaska, Hawaii, Mexico, Caribbean
Volendam, HA	1850	1999	Caribbean, Alaska
Voyager of the Seas, RCI	3838	1999	Mexico
W			
Westerdam, HA	2272	2004	Caribbean
World Renaissance, Royal Olympia Cruises	599	1966/1996	Greek Islands, Turkey
Z			
Zaandam, HA	1850	2000	Caribbean
Zenith, Celebrity Cruises	1800	1992	Caribbean
Zuiderdam, HA	2272	2002	Caribbean