IMPLICATIONS OF THE PROPOSED SOUTHERN STRAIT OF GEORGIA NATIONAL MARINE CONSERVATION AREA FOR THE B.C. ECOTOURISM INDUSTRY

By

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Abstract
Growing concern over the diminishing health of the world’s oceans over the last half century has spawned the rise of Marine Protected Areas throughout the globe as one way for governments to combat environmental degradation and promote a more sustainable marine environment. This research looks at a specific type of Marine Protected Area in Canada called a National Marine Conservation Area. The study examines how one such area, which is proposed for the Southern Strait of Georgia in British Columbia, might impact the local ecotourism industry. Through an exploration of local ecotourism industry concerns, lessons learned from the Great Barrier Reef Marine Park, and the expectations of the governing bodies involved, recommendations are developed. These recommendations seek to help the ecotourism industry to better understand the implications if the proposed National Marine Conservation Area in the southern Strait of Georgia is approved, and to inform government about industry concerns.
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Introduction

Due to the steady deterioration of the oceans over the last several decades, there has been a concerted movement toward the establishment of Marine Protected Areas (MPAs) in an effort to protect, improve health and sustainably manage critical marine biospheres throughout the world. “Marine protected areas are the legislative designation for the protection of specific coastal and marine areas from otherwise unrestricted human activities.” (Jamieson, 2001, p. 138). There are several contributing factors that threaten ocean ecosystem health including overfishing, oil spills and pollution, physical alterations such as dredging, dumping and construction, agricultural runoff, and a myriad of other maladies precipitated from human activities. These cause problems such as ocean temperature rises, increased salinity and acidification. Although MPAs cannot address all of the problems associated with ocean health degradation, they are a powerful tool by which governments can co-ordinate across jurisdictional lines to first mitigate and then reverse many of these trends.

Diminishing ocean health directly affects the livelihood of marine ecotourism operators who make their living through access to healthy and vibrant populations of marine animals. It is therefore of paramount importance to the ecotourism industry that the protection of marine areas is undertaken. This means that the industry needs to proactively support initiatives like MPAs to protect the future of their businesses. There are examples of MPAs that are starting to reverse poor ocean health trends and have thereby improved the longer term outlook for ecotourism operators in those areas; most notably the Great Barrier Reef Marine Park in Australia. For
context and in order to gain a perspective on how Canada might use some of the best practices learned in the Great Barrier Reef Marine Park experience; to benefit ocean health and the ecotourism industry, it is necessary to first examine the evolution of MPAs globally and then look in more depth at the Great Barrier Reef Marine Park.

**Global MPA History**

The modern global conservation movement which started in the early 20th century and was propagated by visionaries like Gifford Pinchot and Aldo Leopold, was initially only focused on terrestrial ecosystems (Weddell, 2002). Later, as the concerns and concepts of environmental conservation began to grow within the more mainstream population, the movement expanded to include marine and aquatic environments. The success in raising public awareness about these water based environments can be partly attributed to the increase and availability of information accessed through television and the popularization of conservation concepts by environmentalists such as Jacques Cousteau, David Suzuki and others.

The genesis of MPAs themselves can be traced to the Geneva Conventions on the Law of the Sea from 1958 which included four main conventions; the Convention on the Continental Shelf, the Convention on High Seas, the Convention on Fishing and the most pertinent of these conventions for the future development of MPAs, the Convention on the Conservation of the Living Resources of the High Seas (Kelleher & Kenchington, 1992). These conventions attempted to bring international agreement on wide-ranging concerns about the oceans with a focus on laws, pollution and fishing. Although these conventions were focused on ways to conserve the oceans, there were a large number of international delegates with individual agendas and as such it was necessary to use very broad strokes which lacked the
more specific details that would be required to properly address the many problems facing the
greater marine ecosystem health (Jessup, 1959).

In order to further refine and expand upon the Geneva conventions, the first World
Conference on National Parks was convened in 1962 where the need for the protection of
coastal and marine areas was specifically considered and the concept of modern MPAs was
formed (Kelleher & Kenchington, 1992). In subsequent years numerous conventions followed
and many conservation organizations like the International Union for Conservation of Nature
and Natural Resources (IUCN), the World Wildlife Fund (WWF) and the International
Maritime Organization (IMO) further built upon the initial work in the late 1950s and 1960s to
better refine and define marine conservation strategies (Kelleher & Kenchington, 1992). At the
same time governments throughout the world developed and strengthened environmental laws
in response to growing public concerns to help protect marine ecosystems.

With the weight of new laws and the support of countless non-governmental
organizations (NGO’s), as well as the growing public concern propagated by the popularity of
Cousteau and others, a considerable momentum was building by the mid-1970s for the
designation of more MPAs worldwide. According to Kelleher & Kenchington (1992), by 1970
there were 118 MPAs in 27 countries and by 1985 the number had grown to 430 MPAs in 69
countries. The number of MPAs continues to grow but the size and effectiveness of each varies
greatly. Protect Planet Ocean (2010), which is an initiative by the IUCN, reports that there are
now over 5000 MPAs worldwide. The largest and widely considered one of the most successful
MPAs in the world is that of the Great Barrier Reef Marine Park which has been a guiding
example for the development of MPAs since the 1970s and continues to inspire their
development today (Day & Dobbs, 2012).
The Great Barrier Reef MPA

In 1975 the Australian Government enacted the Great Barrier Reef Marine Park (GBRMP) Act, which was a sweeping and multi-faceted piece of federal legislation designed to protect the largest reef system in the world encompassing more than 345,000 square kilometers (Day & Dobbs, 2012). The designation of the GBRMP was a monumental and very complex undertaking that required vision, forethought and above all bureaucratic intestinal fortitude. Beyond the enormous challenges of crafting biologically sound policies, the most substantial hurdle was in how the park’s administration and governance could be achieved given the multitude of government jurisdictions and stakeholder groups (Day, 2002). Although the legislation itself was federal, the existing jurisdictional law was multi-governmental from federal to state to local and multi-departmental within each level of government. To cut through cross-jurisdictional lines and achieve full agreement and participation, it was necessary to create a new type of governance that was inclusive of all levels of government. In order to accomplish these goals the legislation called for the formation of the Great Barrier Reef Marine Park Authority (GBRMPA) which was formed through negotiation and binding agreements signed by the various levels of government (Day, 2002).

The formation of the GBRMPA was initially the most critical and difficult aspect to get in place, however the real genius in the success of the park lies in the forward thinking approach to the mechanics of how the park is actually managed. Through the formal inter-governmental agreements and the development of strong cooperative partnerships with industry and other user groups, a collective drive toward a shared vision for conservation is achieved (Day & Dobbs, 2012). The GBRMP Act clearly spells out the principal goals of the legislation (Great Barrier Reef Marine Park Act, 1975, p. 1) which address three imperatives of
sustainable development which were later described by the ICUN (1994) and Dale (2001) as the ecological, the social and the economic. All three of these concerns have importance for ecotourism. How the GBRMPA achieves the critical balance of the three imperatives is through the use of zoning and adaptive co-management (Nursey-Bray & Rist, 2008). As Day and Dobbs (2012) point out, the GBRMPA, recognizing the importance of ecotourism as an economic driver of sustainability in the area, sought to compartmentalize the uses of different regions of the reef to best manage potentially detrimental impacts. Harriott (2002) from the University of Brisbane reported that the Australian economy was receiving about 1.6 million marine tourists a year with an economic benefit of over one billion dollars in direct income per year. This represents a very considerable economic engine, and zoning provides a means through which it can continue to run while also providing for the protection of areas of critical ecological concern. Without ecological protection, the vast economic benefits of ecotourism could not be realized and the social benefits could potentially be diminished.

Zoning.

Zoning is a technique used to spatially organize and compartmentalize the multi-use activities of the park to avoid conflicting interests. This means that some areas are designated to allow for commercial exploitation, some for tourism or cultural activities, some for research and still other biologically sensitive areas are zoned for activity exclusion (Day, 2002). This zoning strategy has been extremely effective and since its inception in 1981 it has been considered the cornerstone of the park’s management success (Day, 2002). The zoning approach is administered through an adaptive management process including federal, state and regional governmental entities and also includes consultation with aboriginal leaders and most relative to this study, industries like ecotourism (Nursey-Bray & Rist, 2008). Past successes and failures as well as
changing biology in the field and the identification of critical or unique areas are regularly studied and the zoning is continually adjusted and improved to react, thereby assuring the long term sustainability of the whole system (Day, 2002; Fernandes, Dobbs, Day & Slegers, 2010).

Working in concert with the zoning stratagem is the use of permits as a way to control activities within each zone. As described by Day (2002), this permitting system provides a means for regulating activities, locations of activities, the number and qualification of permit holders, and the specific conditions and times under which the activities can occur. Obviously, a key component of making the permit system effective is the need for continuous and vigilant enforcement. Day further points out that the careful issuance of permits based on biology, the description of specific zone boundaries, the avoidance of too many zones with minor usage differences and using an adaptive management approach all contribute to less confusion and make enforcement much more effective.

**Advisory committees.**

For ecotourism operators, the opportunity to directly engage and inform the GBRMPA about administration, policy development and planning as they relate to zoning, permitting and other issues is through several advisory committees and groups to which they are members including; a) the Great Barrier Reef Consultative Committee, b) the Reef Advisory Committee, c) the Local Marine Advisory Committees, d) the Tourism and Recreation Group, and e) the Tourism and Recreation Reef Advisory Committee (Gardner & Bicego, 2007). The objectives for the GBRMPA in establishing the committees are clearly articulated in their Terms of Reference for Local Marine Advisory Committees (LMAC):

- To provide an equitable forum for discussion of matters relevant to the management, the ecologically, socially and economically sustainable use, and the conservation of marine
and coastal resources in the World Heritage Area especially in matters relevant to the local region.

- To remain informed of relevant local GBRMPA and management partners issues, and local community views and concerns.
- To provide a channel of communication between users of the Great Barrier Reef World Heritage Area, management agencies and interest groups to work towards identifying and resolving issues at a local level.
- To provide a mechanism for the active participation and awareness of local communities in environmental actions and activities associated with the Great Barrier Reef World Heritage Area.
- To advise relevant marine management agencies on matters relating to the marine and associated coastal wetland environments that may impact on the Great Barrier Reef World Heritage Area.

(Great Barrier Reef Marine Park Authority, 2012, p. 6).

Through these various committees the GBRMPA enjoys a real and fruitful partnership with the ecotourism industry as well as other user groups. Ultimately the long term sustainability of the area is achieved through the pursuit of the stated objectives of the advisory committees (Gardner & Bicego, 2007).

At the end of the day the GBRMP experience has much to offer in terms of best practices regarding ecotourism. Having dealt with all conceivable aspects of creating a successful MPA over a vast temporal and spatial scale, the GBRMP also offers governments, environmental managers and industry a wealth of information on effective operational strategies. Furthermore,
the use of this information can save precious time, effort and resources for the formation of other MPAs globally in the future with regard to ecotourism and in particular the MPA that is the focus of this paper.

**MPA Evolution in Canada**

Historically in Canada, the protection and preservation of wildlife and habitats was centered on terrestrial areas. With the advent of the federal government’s migratory bird sanctuaries (MBS) in the early 1900s, the protection of the first marine areas was gained as a consequence of protecting bird nesting grounds and migratory pit-stop zones (Jamieson & Levings, 2001). It was in 1997 when the Canadian Oceans Act was formally legislated and the protection of marine areas was officially recognized within the mandate of the government of Canada (Jamieson & Levings, 2001). The Oceans Act is administered by the Department of Fisheries and Oceans (DFO) and they have the authority to designate MPAs, although as Jamieson and Levings (2001) point out, there are a host of other governmental departments, both federal and provincial, that can protect marine areas in what essentially amount to MPAs; these would include the Canadian Wildlife Service, Environment Canada, provincial environmental departments, Fish and Game and others.

In 1986, in response to growing concerns about the state of marine habitats, the Government of Canadian developed and approved a National Marine Conservation Areas (NMCA) policy through Parks Canada (PC) (Parks Canada, 2010). Subsequently, the National Marine Conservation Areas Act (NMCAA) was passed in 2002 giving PC the formal legislative power to create its own MPAs within Canada (Parks Canada, 2010). The striking difference between the Oceans Act and the NMCAA is that DFO can only designate an MPA under one or
more of five defined circumstances including: a) the conservation and protection of commercial and non-commercial fishery resources, including marine animals, and their habitat, b) the conservation and protection of endangered or threatened marine species, and their habitats, c) the conservation and protection of unique habitats, d) the conservation and protection of marine areas of high biodiversity or biological productivity, and e) the conservation and protection of any other marine resource or habitat as is necessary to fulfil the mandate of the Minister (Government of Canada, 1996). It should also be pointed out that the Oceans Act does not apply to the Great Lakes (Jamieson & Levings, 2001).

PC, on the other hand, has a much larger scope and greater latitude to designate their NMCAs and their jurisdiction under the NMCA Act does include the Great Lakes (Government of Canada, 2002). PC’s mandate and goals for designation are much less restrictive than those of DFO and they include the following: (Government of Canada, 2002; Parks Canada, 2002).

- Represent the diversity of Canada's oceanic and Great Lakes environments.
- Maintain ecological processes and life support systems.
- Provide a model for sustainable use of marine species and ecosystems.
- Encourage marine research and ecological monitoring.
- Protect depleted, vulnerable, threatened or endangered marine species and their habitats.
- Provide for marine interpretation and recreation.
- Contribute to a growing worldwide network of marine protected areas.

PC later generalized their objectives in the establishment of NMCAs: “To protect and conserve for all time national marine areas of Canadian significance that are representative of the country's ocean environments and the Great Lakes, and to encourage public understanding,
appreciation and enjoyment of this marine heritage so as to leave it unimpaired for future
generations” (Parks Canada, 2009). PC’s NMCA system plan divides Canada's Pacific, Arctic,
Atlantic Oceans and the Great Lakes into 29 marine regions each with a “distinct combination
of physical and biological characteristics” (Parks Canada, 2014). PC seeks to achieve these goals
through adaptive management, zonal planning as well as the development of partnerships with
provincial government departments, other federal departments, aboriginal groups and regional
stakeholders including industries like ecotourism (Nicholas Irving, personal communication,
August 21, 2014; Parks Canada, 2014). This approach will enable PC to cooperatively create
zones with varying usage parameters, including exclusionary use zones in order to achieve all the
objectives set out in their mandate. After the identification of candidate sites as being unique, the
NMCA establishment process consists of four steps including a) the selection of the area, b) a
feasibility study and assessment, c) stakeholder negotiations, and d) official establishment of the
area through an amendment to the NMCA Act (Parks Canada, 2014).

It is clear that the majority of PCs mandates and goals for designating NMCAs directly
support the future livelihoods and collective aspirations of ecotourism operators in British
Columbia and elsewhere in Canada. PC (2012) states that the development of NMCAs is
expected to enhance and help to develop ecotourism industries in Canada’s marine ecotourism
sector. Furthermore, two imperatives of sustainable development described by the ICUN (1994)
and Dale (2001), ecologic and economic, and arguably the third social imperative, are crucial for
the long term health of the ecotourism industry. The mandates and goals set out by PC and the
NMCA Act clearly addresses these imperatives however, how they are achieved is a question
that needs to be answered.
Current NMCA Status

At the time of this study, there has been just one true NMCA officially established under the NMCA Act. Although not officially NMCAs, there are also two marine parks which operate under the NMCA Act system (Parks Canada, 2014). The first NMCA was the Gwaii Haanas National Marine Conservation Area Reserve in what was previously called Queen Charlotte Islands; the two marine parks are the Fathom Five National Marine Park in Georgian Bay Ontario and the Saguenay-Sainte Lawrence Marine Park in Quebec (Parks Canada, 2014). There are currently three areas at various stages of study within the 29 regions identified by PC that are under consideration for designation as NMCAs; Lancaster Sound on the North West Passage in the Arctic Ocean, Magdalen Shallows at the mouth of the Sainte Lawrence Sea Way, and the proposed Southern Strait of Georgia (SSG) NMCA in British Columbia, which is the focus area of this paper (Parks Canada, 2014).

The SSG-NMCA was first identified as a potential candidate for the establishment process more than a decade ago. The proposed SSG-NMCA is the furthest along the designation process of the three areas currently under study and has just finished stage two of the process, its feasibility assessment which began in 2005 (Nicholas Irving, personal communication, August 21, 2014: Parks Canada, 2012). The proposed area encompasses a range of approximately 1400 sq.km of marine habitat in the SSG between Vancouver Island and the mainland (Parks Canada, 2012). This area includes virtually all the waters surrounding the Gulf Islands from Gabriola Island in the north to almost as far south as Victoria; it covers waters westward to the eastern coastline of Vancouver Island and east to the American border in Boundary Pass and Harrow Strait. The area is commonly referred to as the Salish Sea.
Figure 1 Proposed Boundaries for Southern Strait of Georgia NMCA
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(Parks Canada, 2012)
Figure 1 shows the boundary for the SSG-NMCA proposed by PC. The feasibility assessment consisted of identifying the main stakeholders from the proposed area which would include (a) the Province of British Columbia, (b) Fisheries and Oceans, (c) Transport Canada, (d) 19 First Nations, (e) BC Ferries, (f) local governments, (g) community groups, (h) residents, (i) the whale watching/eco-tourism industry, and (j) commercial and non-commercial fishers (Nicholas Irving, personal communication, October 5, 2013; Parks Canada, 2012). Through a series of more than 35 public consultation workshops and over 300 meetings and presentations, PC accumulated information on the opinions, attitudes and concerns of the various stakeholder groups to assess how best to move forward into the next phase of the establishment process; the negotiation phase (Parks Canada, 2012). Additionally, in order to properly assess the best administrative mechanics and scientific concerns for the proposed NMCA, PC contracted several environmental consulting firms to produce studies on issues like governance structures, socioeconomic considerations and environmental impact assessments (Parks Canada, 2012). Included in the many meetings that were conducted were numerous intergovernmental committee consultations which included designated members from PC, DFO, BC Parks and the Islands Trust which is a federation of local governments in the area, where the various studies were considered along with individual government stakeholders’ concerns (Brett Hudson, personal communication, August 22, 2014; Nicholas Irving, personal communication, August 21, 2014; Sheila Malcolmson, personal communication, August 20, 2014).

Ecotourism Economics

There is a considerable whale watching and ecotourism (WW/ET) industry operating in the proposed SSG-NMCA site and the surrounding areas and official designation of the proposed site will have some consequences for the industry. The industry has developed over
the last 30 years into a substantial economic engine for the area as ecotourism has blossomed 
world-wide. In a study commissioned by the International Fund for Animal Welfare (2009), it 
was found that in 2008 alone over 13 million people participated in marine ecotourism 
activities worldwide and the industry directly employed more than 13,000 people. In a study 
marine tourism sector had 888 companies operating in ecotourism. In another study 
commissioned by the BC Oceans Coordinating Committee, it was reported that in 2002 the BC 
marine tourism industry generated $3.35 billion dollars province wide and by 2005 that number 
had grown to $3.79 billion (GSGislason & Associates, 2007). With respect to the local whale 
watching operators that use the area of the proposed SSG-NMCA, Osbourne (1999) reports that 
in 1997 the local whale watching industry alone generated $5.7 million. The reason for the 
success of the local WW/ET industry is directly tied to the abundance and easy access to the 
numerous marine mammals, fish, birds and wildlife species found within the proposed NMCA 
and surrounding waters.

Clearly, this level of economic activity is significant and warrants some careful 
considerations by PC in how they administer the new SSG-NMCA if it is approved and what 
specific considerations they make for the inclusion of the ecotourism industry’s concerns. 
While PC did include the WW/ET industry in its workshops and open houses, there was no 
specific inquiry of the industry’s concerns or a delineation of exactly how the designation of 
the SSG-NMCA might affect the industry. On balance, it was beyond the scope of the 
information gathering sessions to do so. None the less, in a study done by Deardon and Heck 
(2012) to assess local expectations for the SSG-NMCA, they point out that the information 
gathered at the PC informational sessions, and in fact also their own surveys, need a more in-
depth assessment of the opinions of each of the different individual stakeholder groups. Plainly there is a gap in the knowledge base pertaining to ecotourism and the proposed SSG-NMCA that is partially addressed through this research project.

**Research Question and Objectives**

The central research question of this project is: “What are the potential implications for BCs WW/ET industry if the SSG-NMCA comes into effect?” In order to adequately answer this question there are three overarching issues that need to be considered. First and foremost, what are the specific expectations and concerns of the WW/ET industry with regard to how the potential NMCA will be administered? Second, are there any possible regulations being contemplated specifically for the WW/ET industry with regard to the potential implementation of the SSG-NMCA? Third, what lessons can be learned from past experiences in MPAs that have a large ecotourism component? This report attempts to answer this last question by highlighting the lessons learned in the Australian GBRMP experience. Ultimately, the end goals of this research are to (a) better inform the WW/ET industry about what the framework of the SSG-NMCA will mean for them if it is formally designated in law, and (b) provide feedback to PC through the development of recommendations that can be used by governments to inform decisions being made about WW/ET in both the proposed SSG-NMCA and future NMCAs. The recommendations developed through this study are based on the concerns and attitudes of the WW/ET industry, as well as the best practices identified within the GBRMP experience. The recommendations are intended to promote the long term conservation goals of both the ecotourism industry and PC.
Research Methodology

The methodology employed for this research project was carried out using a mixed methods approach as described by Denzin (1970) and further elaborated on by Newing (2011) and Pierce (2008). This approach allows for good data triangulation offering a high degree of rigor and increased validity of the data results (Johnson, 2004; Pierce). The methodology for the research consists of four main phases which were completed in succession; each phase informing and supporting the subsequent ones.

For context, the commencement of the research began with a literature review to establish an accurate history of the origins of MPAs as well as a detailing of the conventional thinking on their formation. The literature review emphasises focus on the past lessons learned in the Great Barrier Reef MPA experience and goes on to detail the history of MPAs in Canada. Finally, the literature review ultimately makes an accounting of the current MPA/NMCA status within Canada which frames the focus of the research for this project.

In the second phase of the research, qualitative methods of data collection were performed through the use of a questionnaire which was administered to the WW/ET industry members that were identified as having some operations within the sphere of the proposed NMCA boundary. This group includes predominantly whale/wildlife watching companies, sailboat charters, fishing charters, dive charter companies and kayak touring companies. The construction of the questionnaire questions was developed through guidance from Fink’s (2003) book, “How to ask Survey Questions”, and included mostly closed questions with some open-ended questions at the end. The questionnaire as it was presented can be seen in Table 1 in the Appendix.
The questionnaires were delivered to the target WW/ET members through an email invitation to participate. Upon receipt of the completed questionnaires the information collected was then converted from qualitative data to quantitative data. This conversion was accomplished by initially tagging the raw data from the questionnaires followed by coding and a statistical analysis using measurements of central tendency and frequency analysis to identify common themes and points of agreement and disagreement between the different WW/ET companies. These coding and analysis techniques were performed following recommendations from three main sources in the literature (Fink 2003; Miles & Huberman 1994; Pierce 2008).

Once the analysis of the questionnaire data was completed, the most common themes, questions and points of concern from the WW/ET industry were used to help inform the development of an interview guide that was used in the third phase or research; semi-structured interviews administered to governmental authorities who are directly involved in the crafting and decision making process for the SSG-NMCA. The construction of the interview guide was again completed using the techniques described by Fink (2003) and Pierce (2008). The composition of the questions in the interview guide was somewhat different from the questions in the questionnaire in that there were some close ended questions but contained more open ended questions. The reason for this approach was to drill down deeper into the mindset of the governing bodies and to allow for a more in-depth discussion exploring some of the governmental challenges. The interviews were administered in person or by telephone and in addition to detailed note taking the sessions were audio recorded to ensure accuracy during data analysis. Following the completion of the interviews, the qualitative data collected was again coded and analyzed using the techniques described by Fink, Miles & Huberman, (1994), and Pierce. The interview guide that was used is represented in Table 2 in the Appendix.
The governmental entities on the interviewee list were comprised of members from three levels of government including, (a) the top ranked PC bureaucrat who until recently held the position of head Marine Area Establishment Manager in the Protected Areas Establishment and Conservation Directorate, who was overseeing the SSG-NMCA proposal process and chairing the informational sessions, (b) the Senior Park and Protected Area Planner from BC’s Ministry of the Environment (BC Parks) responsible for representing the provincial government’s position as it pertains to the SSG-NMCA, and (c) the Chair of the Islands Trust Council responsible for providing a local level municipal view from The Islands Trust which is a municipal federation of local governments in and around the Gulf Islands.

The fourth phase of this research involved assimilating all the data analyzed from both the questionnaire and the interviews to develop a list of recommendations. The resultant recommendations were then integrated into two short reports, which will be distributed once thesis approval is obtained. The first report will be presented to the WW/ET industry members that participated in this research project through the questionnaire. The industry report also details the recommendations given to government that were developed through this research. This report should be very helpful for these companies when making future business decisions with regard to operations in the proposed NMCA area, as well as provide a better understanding of the process and governmental positions on concerns raised by industry. The second report will be presented to the government officials that participated in the interviews and details recommendations and possible strategies for dealing with the WW/ET industry concerns and questions. Furthermore, this report highlights operational best practices suggestions based on the literature review of the GBRMP accomplishments. The government report may prove useful for
the governments’ decision making processes during the imminent SSG-NMCA negotiations and possibly for future NMCAs.

**Addressing Study Limitations**

The methodological plan for this project was chosen to minimize and mitigate any potential study limitations and to maximize reliability and validity. During all phases of the research great care was taken to eliminate any bias the researcher may have and to guard against letting any biases influence results in any way. Specifically, this meant addressing and being conscious of the researcher’s strong personal support for various Canadian conservation efforts including NMCAs, due to a long history working within the WW/ET industry. During construction of the survey questions and the interview guide, as well as how the interviews were actually conducted, it was important for the researcher to be mindful of not trying, either consciously or subconsciously, to lead participants in their responses to questions. It is believed that these potential bias limitations were overcome altogether through adherence to scientific rigor and the continual maintenance of research integrity.

There were further limitations identified in the practical application of the research. First, the research was conducted during the busiest part of the WW/ET industry’s season. This made getting completed questionnaires returned very challenging indeed. This situation further hindered the interview phase because the analysis of the questionnaires was required before the interviews could commence. Second, scheduling the interviews was challenging because of the summer vacation schedules of the various governmental authorities. In addition for reasons that are not well understood, some federal departments have undergone considerable NMCA participant personnel turnover in recent months. This meant that new people were uncomfortable
being interviewed because they were in new positions and they did not feel that they could
answer questions accurately or with a full depth of knowledge. This disposition was particularly
evident within DFO.

It was originally intended to include a suitable representative from DFO to participate in
the interview phase because of DFO’s involvement in NMCA development. During the planning
stages, before commencement of the research, a commitment to participate was garnered from a
DFO official involved in NMCA development. Due to the time required to complete the
questionnaire phase of the project, an interview with this DFO official was not possible because
he had retired and was unreachable. Consequently an exhaustive search was undertaken to find a
replacement from DFO to interview, but it was unsuccessful. It was stated by five different DFO
employees involved to various degrees in NMCA development that they would be unable to
answer the questions. The reasons ranged from being too new in the position to not having a
proper grasp of the intricacies of the SSG-NMCA, as well as other various reasons. After several
weeks of trying to find a DFO representative, it was decided that that department would not be
directly included in the study.

Ultimately, despite the exclusion of a DFO interview from the research, all other practical
challenges were overcome and a comprehensive data set was obtained. The opinions and
interplay of the three levels of government interviewed do provide significant insight into the
workings and challenges of developing NMCAs. The opinions expressed by government address
the fundamental research question and taken in their entirety with those expressed by the
WW/ET industry a full picture and substantive recommendations list was developed.
The experience has equipped the researcher with a better understanding of potential challenges that need to be addressed in future research projects. Allowances must be made in crafting research plans and an ability to be flexible and adaptive is an asset. Moreover, the collection of sound and reliable data is the goal of any research and limiting factors can arise at any time.

Results and Analysis

Questionnaire

The questionnaire represented in the Appendix in Table 1 was submitted to 24 members of the WW/ET industry that were identified as having some degree of operations within the proposed SSG-NMCA. This study group encompassed companies engaged in several activities including whale/wildlife watching, dive charters, sport fishing, kayaking and sailing. The group used in the study was chosen based on the researcher’s own knowledge from past experience as well as through industry referrals and advertising. Of the 24 questionnaires sent out to industry a total of 18 or 75% were returned and used for the study.

The questionnaire study group was composed of, a) two sailing charter companies, b) two dive charter companies, c) three fishing charter companies, d) five kayak tour companies, and, e) 10 whale/wildlife watching companies. Due to the fact that some of the companies engage in more than one activity, they are counted in more than one category. The participants in the group included 15 owners and three general managers; the years in business ranged from 7-83 years and the number of employees ranged from 1-50. All the participants answered that they did
indeed have some operations in the proposed area and were evenly split on using the area often as opposed to occasionally.

The techniques employed in the analysis of the questionnaire data follow recommendations from Fink (2003), Miles and Huberman (1994), and Pierce (2008) and are concerned mostly with measures of central tendency and content analysis. In the initial part of the questionnaire analysis, the mode of the responses to the ordinal questions 5 through 10 in the second part of the questionnaire was graphed to see what the prevailing industry-wide view was for each of the questions. To achieve this analysis, the specific responses were plotted against the number of companies that gave the response. Figure 2 graphs responses for each of the ordinal questions 5 through 10 which were:

- Question 5: Do you think that the Canadian Government needs to do more to protect marine areas in Canada?
- Question 6: Do you support the idea of NMCA’s to help protect marine areas in Canada?
- Question 7: Do you support the idea of an NMCA in the Southern Strait of Georgia?
- Question 8: Would the designation of an NMCA in the Southern Strait of Georgia benefit your business?
- Question 9: Would you support the idea of licencing ecotourism operators within the boundaries of an NMCA?
- Question 10: Do you think an eco-tourism licence for the SSG-NMCA would benefit your business?
Figure 2 Prevailing Ecotourism Responses

Q5: Does Government Need To Do More?

Q6: Do you Support the NMCA Program?

Q7: Do you Support the Idea of a SSG-NMCA?

Q8: Would the SSG-NMCA Benefit Your Business?

Q9: Do you Support Permits/Licenses?

Q10: Would a License Benefit Your Business?
In the next part of the analysis, the dependant ordinal variables from questions 5 through 10 were looked at to determine if there were any differences in opinion based on the independent variables from each individual sector of ecotourism activities. Although the answers to the questions in the second section of the questionnaire are ordinal in scale, for the sake of the analysis they can be regarded as numerical (Fink, 2003). To achieve this analysis a numerical score was assigned to each of the possible answers as demonstrated in Table 3. Because the answer Don’t Know is a neutral response that is neither positive nor negative in nature, it is assigned a value of three and represents the natural divider between a positive response and a negative one.

Table 3

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Don’t Know</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCORE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The answers for each sector were then tabulated to determine the mean response for that sector to each of the ordinal questions in the second part of the questionnaire. The accepted equation of \( \Sigma X/n \) was used to calculate the mean where the capital Greek letter sigma indicates to sum, \( X \) is each individual observation, and \( n \) is the total number of observations for each sector. Table 4 shows what the tabulated mean responses were for each sector. The responses from those companies that have activities in more than one sector were included in multiple sector tabulations. There is also a tabulation of all sectors together representing the entire group mean for comparison. The group mean demonstrates variations from individual sectors to the industry as a whole.
Table 4

*Numeric Score for Ordinal Questions by Sector*

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>Question 5</th>
<th>Question 6</th>
<th>Question 7</th>
<th>Question 8</th>
<th>Question 9</th>
<th>Question 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAILING</td>
<td>4.50</td>
<td>4.50</td>
<td>4.50</td>
<td>3.50</td>
<td>4.00</td>
<td>3.00</td>
</tr>
<tr>
<td>DIVING</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>2.67</td>
<td>1.67</td>
<td>1.67</td>
</tr>
<tr>
<td>FISHING</td>
<td>4.67</td>
<td>4.33</td>
<td>4.33</td>
<td>3.33</td>
<td>2.33</td>
<td>2.33</td>
</tr>
<tr>
<td>KAYAKING</td>
<td>4.80</td>
<td>4.60</td>
<td>4.40</td>
<td>3.40</td>
<td>3.40</td>
<td>3.00</td>
</tr>
<tr>
<td>WHALE WATCHING</td>
<td>4.60</td>
<td>4.24</td>
<td>4.00</td>
<td>3.70</td>
<td>3.20</td>
<td>3.40</td>
</tr>
<tr>
<td>ALL</td>
<td>4.50</td>
<td>4.33</td>
<td>4.17</td>
<td>3.50</td>
<td>3.33</td>
<td>3.22</td>
</tr>
</tbody>
</table>

These values were then plotted on the graph in Figure 3 to provide a visual representation showing the significance and magnitude of the differing individual sector opinions.

*Figure 3 Opinion by Ecotourism Sector*
The final part of the analysis was to perform a content analysis of the nominal dependent industry responses to the two open-ended questions posed in the third section of the questionnaire. This analysis was performed by first tagging and then coding common words and phrases found in the responses. The initial tagging process involved identifying key phrases, ideas or themes in the responses from the questionnaires. Similar phrases were then grouped together in a progression until distinct and unique themes were distilled. The unique themes were then given a three letter code and the frequency of each code was calculated across all of the questionnaires. Table 5 shows the codes that were used for the various themes and the frequency of responses from the participants demonstrating the mode or most common industry responses. There were a host of other responses given for these questions, however roughly 57% were only recorded once; only responses recorded multiple times were included in Table 5.

Table 5

*Frequency for Ecotourism Responses to Questions 11 & 12*

<table>
<thead>
<tr>
<th>THEME</th>
<th>CODE</th>
<th>NUMBER OF COMPANIES EXPRESSING THE THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong support for NMCA’s and/or the SSG-NMCA</td>
<td>SUP</td>
<td>10</td>
</tr>
<tr>
<td>Do not restrict the WW/ET operators in the proposed area</td>
<td>RES</td>
<td>6</td>
</tr>
<tr>
<td>Salmon / fish habitat protection</td>
<td>FPR</td>
<td>5</td>
</tr>
<tr>
<td>Make permits low cost and regulations not onerous</td>
<td>LOW</td>
<td>4</td>
</tr>
<tr>
<td>Pollution / ecological protection / sustainability</td>
<td>PRO</td>
<td>3</td>
</tr>
<tr>
<td>Fairness for all users</td>
<td>FAR</td>
<td>2</td>
</tr>
<tr>
<td>Reduce resource exploitation levels</td>
<td>RED</td>
<td>2</td>
</tr>
</tbody>
</table>
Overview of questionnaire data analysis.

The strongest message from industry based on the industry-wide responses to the questionnaire questions is that they very much support the idea of an NMCA in the SSG as a means to protect their collective business interests. Additionally, they see the NMCA program as a whole, in a positive light. At the same time there is a feeling of concern and trepidation that the designation of the SSG-NMCA could mean restrictions to their activities. Key concerns also include a desire for more protection of fish stocks and in particular salmon. There was also an expressed need for a strategy to reduce pollution as well as the desire for any permitting to be both low cost and not overly burdensome to obtain. Furthermore, there was an expressed desire that everyone that uses the area be treated equally and that efforts are made to reduce resource extraction in the SSG. Although not strong in scale, the most opposition was demonstrated in responses surrounding the questions about licensing and whether or not a license would benefit their business. It is interesting to note that while there is wide industry support for a SSG-NMCA, when asked if it would benefit their businesses, the most common response was Don’t Know.

When looking at variations in opinion between individual ecotourism sectors there were some differences observed. For instance, on questions number 9 and 10, which measured support for an ecotourism license in the proposed area, there is considerable disagreement. Both the fishing and the diving sectors answered quite negatively to the idea of licensing while the other sectors, particularly the sailing sector, support the idea. The reasons for this apparent disagreement between the fishing and diving sectors and the rest of the industry over licensing is unclear and no reasoning could be found in the literature. The study did not include a follow-up
interview to the questionnaire to determine differing opinions from one sector to another so the reasons for the observed differences would be a matter of conjecture without further study. It should be noted that the study included a relatively small sample group and as such it is difficult to draw any strong conclusions from the opinions of individual sectors. It is important that overall, despite some negative responses from some sectors, the mean responses across all sectors collectively were positive with regard to the establishment of an NMCA in the SSG.

Interviews

Subsequent to the completion of the questionnaire analysis, WW/ET concerns, questions and general disposition were used to help inform aspects of the interview guide. In conjunction with the data collected from industry, other questions were also included based on observations from the literature review with particular reference to the Great Barrier Reef experience. The interviews were conducted with members from the three levels of government targeted in the study who are all involved in the SSG-NMCA process. The government officials who were interviewed included: Sheila Malcolmson, the Chair of the Islands Trust which is a federation of local Gulf Islands governments, Brett Hudson, the Senior Park and Protected Area Planner for BC Parks within the BC Environment Ministry, and Nicholas Irving who was up until recently, the Marine Area Establishment Manager for the Protected Areas Establishment and Conservation Directorate of PC.

It was clear from the outset that some questions were more pertinent to the perspectives of one department over another; however the overarching intent was to determine and analyze the relationship of the different viewpoints regardless of a particular jurisdictional authority. As in the analysis of the questionnaires, the interview analysis again drew direction from Fink
Initially, using the same process employed with the nominal portion of the questionnaire analysis, the responses from each interview were tagged and coded. The process again identified words or phrases with similar focus or implications and were in turn grouped together. A master codebook was then used to analyze each interview data separately. Following the development and analysis of each interview, a further group analysis was then performed to highlight points of agreement and variations in the central focus of each of the governmental departments. Tables 6 through 9 show the codes and the frequency of the themes expressed for each interview; the tables are organised in a descending frequency gradient and only include themes that were expressed multiple times. The Tables and observations are arranged from the collective municipal, to provincial and finally to the federal PC level.

**Islands Trust interview.**

The interview coded in Table 6 was conducted with Sheila Malcolmson, the Chair of the Islands Trust. The Islands Trust has a stated mandate to make decisions that will “preserve and protect” the islands based on The Islands Trust Act (Islands Trust, 2014). The waters surrounding the Gulf Islands in the Salish Sea make up the vast majority of the area encompassed by the proposed SSG-NMCA. This means that the member jurisdictions of the Islands Trust represent the vast majority of the constituents that actually live full, or part time, within the proposed SSG-NMCA.
The interview was conducted via video phone call and Table 6 shows the codes, themes and frequency for the responses that Ms. Malcolmson provided during the interview.

Table 6

Islands Trust Interview Analysis

<table>
<thead>
<tr>
<th>THEME</th>
<th>CODE</th>
<th>FREQUENCY OF THE THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution / ecological protection / sustainability</td>
<td>PRO</td>
<td>12</td>
</tr>
<tr>
<td>Support for NMCA’s and/or the SSG-NMCA</td>
<td>SUP</td>
<td>9</td>
</tr>
<tr>
<td>Concern over uncertainty</td>
<td>CON</td>
<td>8</td>
</tr>
<tr>
<td>Zoning structure important</td>
<td>ZON</td>
<td>8</td>
</tr>
<tr>
<td>Public NMCA support eroding or conditional</td>
<td>PSU</td>
<td>6</td>
</tr>
<tr>
<td>Salmon / fish habitat protection</td>
<td>FPR</td>
<td>6</td>
</tr>
<tr>
<td>Need to educate public more about NMCA benefits</td>
<td>BEN</td>
<td>5</td>
</tr>
<tr>
<td>Shipping industry / boat traffic concerns</td>
<td>SIP</td>
<td>5</td>
</tr>
<tr>
<td>Islands Trust advocacy role</td>
<td>ADV</td>
<td>5</td>
</tr>
<tr>
<td>Cross-jurisdictional challenges/concern</td>
<td>CJU</td>
<td>4</td>
</tr>
<tr>
<td>Eel grass protection</td>
<td>EEL</td>
<td>4</td>
</tr>
<tr>
<td>NMCA co-management / collaboration needs</td>
<td>MNG</td>
<td>2</td>
</tr>
</tbody>
</table>

Observations.

Table 6 demonstrates that the Islands Trust main concerns are ecological preservation and protection against pollution. Specific ecological worries about eel grass beds and fish habitat reiterate this concern further down the list. These observations are not surprising given that the mandate of the Islands Trust Act is to preserve and protect the environment of the Gulf Islands. The second most common theme is that of support for the SSG-NMCA program. The obvious
conclusion here is that the Islands Trust sees the SSG-NMCA as a very important tool in the pursuit of their mandate. Interestingly, the third and fourth themes are centered on both public and institutional concerns over general uncertainty and the possible erosion of the existing zoning structure and authority. This observation is very important because it shows that although the Islands Trust supports the SSG-NMCA, there is a great deal of apprehension about how the structure and governance of an NMCA would work. Furthermore, themes number five, seven and eight show that there is real concern within the Islands Trust that due to the slow progress, shipping opposition and the uncertainty concerns, the public support has been eroding. This mindset is, to a lesser degree, also borne out by themes nine, 10 and 12 which address governance issues.

**BC Ministry of the Environment interview.**

The interview detailed in Table 7 was conducted with Brett Hudson, the Senior Park and Protected Area Planner for BC Parks. Mr. Hudson’s role as he described it is to represent the provinces views in planning and negotiations around the SSG-NMCA, as well as the interests of the BC public at large. The province and federal government guide their interactions through a memorandum of understanding (MOU) that was signed in 2003 (Parks Canada, 2012). This memorandum spells out among other things, an agreed upon discussion and steering committee framework, financial and jurisdictional parameters, and also establishes the stated will of both Canada and the Province of British Columbia to move forward in good faith with the designation of NMCAs in British Columbia (Parks Canada, 2012).

Table 7 shows the codes, themes and frequency for the responses that Mr. Hudson provided. The interview was conducted in person near the office of Mr. Hudson in Victoria BC.
Table 7

BC Ministry of the Environment Interview Analysis

<table>
<thead>
<tr>
<th>THEME</th>
<th>CODE</th>
<th>FREQUENCY OF THE THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Issues surrounding tenure holders and a new tenure structure</td>
<td>TEN</td>
<td>20</td>
</tr>
<tr>
<td>2 NMCA co-management / collaboration needs</td>
<td>MNG</td>
<td>11</td>
</tr>
<tr>
<td>3 Support for NMCAs and/or the SSG-NMCA</td>
<td>SUP</td>
<td>9</td>
</tr>
<tr>
<td>4 Need to listen to and address First Nations issues</td>
<td>NAT</td>
<td>6</td>
</tr>
<tr>
<td>5 Need to listen to and address all stake holders</td>
<td>STH</td>
<td>6</td>
</tr>
<tr>
<td>6 Extremely complex undertaking</td>
<td>COM</td>
<td>5</td>
</tr>
<tr>
<td>7 Need to act in the best interests of the province</td>
<td>BES</td>
<td>4</td>
</tr>
<tr>
<td>8 Full involvement in feasibility study</td>
<td>FES</td>
<td>4</td>
</tr>
<tr>
<td>9 Pollution / ecological protection / sustainability</td>
<td>PRO</td>
<td>3</td>
</tr>
<tr>
<td>10 Cross-jurisdictional challenges/concern</td>
<td>CJU</td>
<td>3</td>
</tr>
<tr>
<td>11 Important to do things right rather than fast</td>
<td>RIT</td>
<td>3</td>
</tr>
<tr>
<td>12 Make permits low cost and regulations not onerous</td>
<td>LOW</td>
<td>3</td>
</tr>
<tr>
<td>13 Public NMCA support eroding or conditional</td>
<td>PSU</td>
<td>2</td>
</tr>
<tr>
<td>14 Need to educate public more about NMCA benefits</td>
<td>BEN</td>
<td>2</td>
</tr>
</tbody>
</table>

Observations.

Table 7 indicates that the main preoccupation of Mr. Hudson was with issues surrounding tenures. This is not surprising given that the province technically owns the sea bed in the area and has administered the tenure process for many years. Existing tenures include everything
from mooring buoys to dock systems to aquaculture leases and all points in between. The proposed area has many hundreds of these existing tenures and the question of how an NMCA will affect those and future tenures is arguably the single most complex dimension of its administration with the possible exception of First Nations considerations. Whatever the structuring of a potential future SSG-NMCA looks like, the province’s concerns over tenures will have to be deeply integrated into the process. The question of tenures and how they will be administered will be resolved during the negotiation phase of the NMCA’s establishment.

The results go on to show that although the province supports the SSG-NMCA, its development and administration need to be highly collaborative, inclusive of all major stakeholders, and work within a co-management structure. Due to the fact that the expressed need to address First Nations concerns was equal in frequency to all other stakeholder groups mentioned together, the researcher felt that it was necessary to not group them all into one code. Theme 6 and 10 show that the province understands fully the considerable complexity and cross-jurisdictional challenges of the task; the province also gives equal weight to their involvement in the process to help overcome these challenges as demonstrated in themes seven and eight.

The province further expresses the importance of not compromising the need to get things right over expedience and to use sustainability as a guiding function in discussions. Additionally the data shows that the province is somewhat concerned about eroding or conditional public support and the need to combat this erosion with better public education on the benefits of an NMCA in the SSG. Theme 12 shows that the province sees keeping any possible permit fees and the permit acquisition processes simple as a way of possibly improving the public buy-in for an NMCA in the area.
Parks Canada interview.

Table 8 shows the codes and theme frequency for the interview with a representative of Parks Canada. The interview was conducted with Nicholas Irving who was up until recently, the Marine Area Establishment Manager for the Protected Areas Establishment and Conservation Directorate. Mr. Irving was the lead PC bureaucrat on the SSG-NMCA development process and held the core role central to all aspects of its first stages of designation. The interview was conducted by telephone.

Table 8

Parks Canada Interview Analysis

<table>
<thead>
<tr>
<th>THEME</th>
<th>CODE</th>
<th>FREQUENCY OF THE THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution / ecological protection / sustainability</td>
<td>PRO</td>
<td>32</td>
</tr>
<tr>
<td>NMCA co-management / collaboration needs</td>
<td>MNG</td>
<td>26</td>
</tr>
<tr>
<td>Need to educate public more about NMCA benefits</td>
<td>BEN</td>
<td>15</td>
</tr>
<tr>
<td>Co-management must be site specific</td>
<td>SSP</td>
<td>8</td>
</tr>
<tr>
<td>Important to do things right rather than fast</td>
<td>RIT</td>
<td>8</td>
</tr>
<tr>
<td>Need to follow an adaptive management framework</td>
<td>ADV</td>
<td>8</td>
</tr>
<tr>
<td>Extremely complex undertaking</td>
<td>COM</td>
<td>6</td>
</tr>
<tr>
<td>Public support ocean conservation</td>
<td>CON</td>
<td>6</td>
</tr>
<tr>
<td>Support for NMCAs and/or the SSG-NMCA</td>
<td>SUP</td>
<td>5</td>
</tr>
<tr>
<td>Make permits low cost and regulations not onerous</td>
<td>LOW</td>
<td>4</td>
</tr>
<tr>
<td>Public NMCA support eroding or conditional</td>
<td>PSU</td>
<td>3</td>
</tr>
<tr>
<td>Zoning structure important</td>
<td>ZON</td>
<td>3</td>
</tr>
<tr>
<td>Shipping industry / boat traffic concerns</td>
<td>SIP</td>
<td>3</td>
</tr>
</tbody>
</table>
Observations.

The results shown on Table 8 make very clear where PC’s priorities lie: the importance of sustainably protecting the environment, the need for participant collaboration and co-governance, and a better educational effort aimed at demonstrating the benefits of an NMCA to the public. Given PC’s lead role and oversight authority in an NMCA under the Act, these three pillars of focus are appropriate, necessary and expected. Although the other themes conveyed by PC carry much less weight, they are significant none the less. It should be noted that theme number four regarding site specific co-management was not added to the co-management and collaboration theme in number two because there is a distinction here. Mr. Irving made a very strong point that the stakeholders and their authoritative weight regarding participation and composition will vary greatly between different potential NMCA locals. In the proposed area of the SSG-NMCA there is a very broad and diverse stakeholder pool which includes an enormous number of users. Other potential NMCA sites throughout Canada would likely not have nearly as many viewpoints to contend with.

The data further shows that PC recognizes the need to get things right rather than do things quickly or incompletely and that an adaptive management framework is the way to ensure success. PC notes that the process is an extremely complicated one but this theme is expressed at just midway on the frequency gradient. This is likely due to the fact that PC’s responses show so much focus on the need for co-management and collaborative efforts as a strategy to overcome complexity. Theme eight and nine were not combined together because there was a distinction made between the general public support for oceanic conservation and the support for NMCAs specifically. The lesser themes at the bottom of the gradient include a recognition that any new
regulations not be too onerous or expensive as well as the importance of zoning and shipping industry concerns.

Intergovernmental comparison analysis.

It is to be expected that there would be themes only expressed in one or the other of the interview subjects due to the individual mandates, constituents, and authorities of each entity. What is notable when comparing the data, is where themes are expressed across all levels of government. Where there is universal agreement or themes expressed by each of the governmental representatives, one can consider those themes to have the greatest importance with respect to the planning of the SSG-NMCA. In addition, the universal themes demonstrate and give insight into what subjects might pertain most to the WW/ET industry. The central goal of this research project is to detail what the implications are for industry if a formal SSG-NMCA designation is established. Table 9 shows the frequency of universal themes across all levels of government and clearly demonstrates those key points of interest for industry.

Table 9

Frequency of Universal Interview Themes

<table>
<thead>
<tr>
<th>THEME</th>
<th>CODE</th>
<th>FREQUENCY OF THE THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pollution / ecological protection / sustainability</td>
<td>PRO</td>
<td>47</td>
</tr>
<tr>
<td>2 NMCA co-management / collaboration needs</td>
<td>MNG</td>
<td>39</td>
</tr>
<tr>
<td>3 Support for NMCA’s and/or the SSG-NMCA</td>
<td>SUP</td>
<td>23</td>
</tr>
<tr>
<td>4 Need to educate public more about NMCA benefits</td>
<td>BEN</td>
<td>22</td>
</tr>
<tr>
<td>5 Public NMCA support eroding or conditional</td>
<td>PSU</td>
<td>11</td>
</tr>
</tbody>
</table>
Observations.

Although there are only five universal themes for governments their importance cannot be understated. The paramount concern of sustainable ecological protection requires a very high degree of intergovernmental collaborative effort through a co-management model. Secondarily even though the governments themselves support the SSG-NMCA designation, there is a concern that the public’s support may be waning and a more energetic education program is what is need to help reinforce support and halt its erosion. The ultimate goal of sustainable protection for the area would seem a candidate for overwhelming public support however that is not the case. Clearly government needs to do more to reverse this trend.

Interestingly, although not universal there are four themes that scored as high as or higher than universal theme number five. Namely the concern over uncertainty, the importance of a strong zoning structure, the importance of doing things right rather than fast, and the recognition of the extreme challenges of complexity. They are generally a governmental perspective on the process but these themes all appear to be points that need to be articulated to the public.

Discussion and Conclusions

The job of putting together the SSG-NMCA is a very complex and multifaceted enterprise. The Southern Strait of Georgia is one of Canada’s busiest waterways with many diverse user groups both private and commercial and the area includes the main shipping route for international deep sea freighters transiting to Canada’s west coast. Adding to the complexity in the area are approximately 25,000 residents, 19 First Nations, BC Ferries routes, commercial and sport fishing enterprises, aquaculture, ecotourism, more than a dozen local governments and
includes the jurisdictions of both the federal and provincial governments; instituting a relatively new form of MPA in the area represents a monumental task. However intricate and multifarious the endeavor is it does not diminish the importance of the long term goals of ecological sustainability in the area and, by extrapolation, the oceans worldwide.

The central focus of the research in this thesis was to determine what the implications for the WW/ET industry would be if the SSG-NMCA is officially designated. The ecotourism industry strongly supports the idea of an NMCA in the area and because they make their living from having an intact natural environment their survival depends on it. The industry does have several concerns however in what the designation would mean for them specifically. The biggest concern is that a slew of new and onerous regulations would result or that their activities could be restricted. All indications from governments are that this would not be the case. Furthermore, as an industry whose specific focus is the protection of the marine areas their businesses rely on, the governments see the WW/ET as a partner and proponent that can help in the process. All those interviewed indicated that they welcome and seek active input from the industry.

Among other industry concerns identified, the issue of permits or licences was high on the list. The WW/ET industry does support the idea overall but cost and ease of access seemed to be worrisome. There is little doubt that there will be permits for any commercial activities in the area if approved; their existence is clearly included in the legislation as it is for all national parks. At the same time PC indicates that permit costs will be kept low and the process of getting them will be simple. As with other national parks any revenue from permitting will be earmarked to go back into conservation efforts in the area. Additionally, the industry expressed a need for more protection of salmon and other fish species in the area. This goal, although not specifically being
address as a stand-alone issue, is part of the overall effect that is desired by the governments. All levels of government recognize the need for this issue to be addressed but also pointed out that this falls within the specific authority of DFO under the Oceans Act. The NMCA Act does not circumvent any other existing legislation including the Oceans Act or the Species at Risk Act and so any regulations specifically targeting increased salmon protection in the area would have to be propagated by DFO.

The GBRMP experience offers a proven mechanism through which ecotourism industry concerns like the ones highlighted above can be addressed on an on-going basis if the park is approved. In Australia this adaptive co-management is achieved through their multi-stakeholder advisory committees (Gardner & Bicego, 2007). If the SSG-NMCA is approved it is crucial that PC include constant input from different stakeholders including the ecotourism industry in order to effectively manage the park. If PC were to follow the success of the Australian example and invite the various stakeholder groups to nominate representatives to serve on an advisory committee, several advantages would be realized. First, stakeholders who have a vested interest in how the park is managed would have some influence on decisions which affect them and would thereby feel as though they were a full partner in the protection of the area rather than simply a user of it. Secondly, PC would have on-going access to a pool of human capital and knowledge capable of providing real time information about changing circumstances and issues in the area. By having regular access to information from the user groups, PC’s demand for resources for things like monitoring, information gathering and research would be diminished. Lastly, an advisory committee would provide a forum and channel of communication through which education and information could flow reciprocally between the various stakeholders and government. At the end of the day, an advisory committee offers both PC and the ecotourism
industry a strategy and mechanism through which their collective goals of long term sustainability and ocean health in the area can be achieved.

Before an advisory committee can be established however, the last big hurdle of the negotiation phase must be achieved. PC will need to overcome the complexity issues surrounding things such as lease tenure administration and First Nations issues during the negotiations. PC is cognisant of the fact that the only way to accomplish its goals is through collaboration and each level of government involved in the process has specific concerns that need to be addressed as the process progresses. The key to success lies in keeping the conversations moving forward. At the same time one of the main issues that needs to be tackled with more focus is addressing the public perception and somewhat slipping support. Although the public generally supports protecting the oceans, many are less sure about how an NMCA could accomplish this. In fact, much of the public does not even understand what an NMCA is, how it works or what it is specifically trying to achieve. There is also a more cynical contingent of the public that thinks the whole process just takes too long or that governments are dragging their feet. Due to the complexities discussed and the need to get it right at the beginning it is not likely that the pace of progress can be increased but these challenges have not been well articulated to the public.

Ultimately, PC’s broad goal of achieving long term sustainability within a SSG-NMCA can be realized in part, by partnering with the ecotourism industry. Day and Dobbs (2012) point out that management through the engagement of stakeholder groups, particularly the tourism industry, through strategic partnerships like the GBRMP advisory committees helps to ensure sustainability. Marine tourism companies are highly motivated to protect the environments their
businesses operate in because their businesses rely on them for their continued existence (Harriott, 2002). Probably the single greatest contribution the WW/ET industry can make to the sustainability of a SSG-NMCA, and indeed the global environment generally, is through the education of their passengers. By improving the public’s understanding of environmental issues, and enhancing their enjoyment of these areas, marine tourism operators can ensure people’s continued support for conservation efforts (Dinesen & Oliver, 1997; Gardner & Bicego, 2007). Reciprocally, government can use policy and management strategies that protect keystone species like salmon thereby protecting the long term viability of the WW/ET industry. For example, in the GBRMP the designation of no-take zones substantially increased fish populations in those areas which directly benefitted tourism (Day & Dobbs, 2012). Harriott (2002) also points out that when compared to other industries, particularly those involved in consumptive extraction or potentially environmentally detrimental activities, marine tourism has great potential to be sustainable.

The findings of this research strongly supports the observations of Day and Dobbs, Harriott, Dinesen and Oliver, and Gardner and Bicego. The local WW/ET industry strongly supports the development of the SSG-NMCA and they see it as a good way to protect the viability of their livelihoods. The industry is very concerned about fish stocks in the area and about conservation of the ecosystem generally and an NMCA can potentially provide a mechanism to sustainably conserve the area. The industry also recognises that an official SSG-NMCA designation would likely represent a boost to their businesses. While there are still some industry concerns about permitting and regulation, the best way to address these concerns on an on-going basis is through their inclusion in the management process through an advisory committee type of system like that used in the GBRMP.
The broad take-away for the WW/ET industry is that the SSG-NMCA has a high likelihood of reaching official designation. The complexities of the project mean that there is still some significant work left to do and that it will take some time. Due to the importance of sustaining the ecology of the area to their businesses, the industry should actively seek inclusion in the dialogue surrounding the SSG-NMCA. If the site is officially designated it will likely not affect them to any high degree and it would increase the security of their businesses. Moreover, a successful SSG-NMCA would probably have a long term positive economic benefit for the industry.

**Recommendations**

The following recommendations are based on the findings of this study and are intended to inform governmental departments involved in the development of the SSG-NMCA about WW/ET industry concerns and to augment the decision making processes.

1) Establish an advisory committee to participate in decision making about the management of the park. The advisory committee should include members from government, First Nations and other stakeholder groups including ecotourism to build consensus through an ongoing adaptive co-management model.

2) Continue to use sustainability and ecological protection as the driver and first point of discussion when examining individual issues.

3) Try to minimize the number of new regulations.

4) Keep costs for any commercial permitting in the area low and make the permitting process simple and easily accessible.
5) Try to streamline new regulations to be similar to existing federal, provincial and municipal regulation in the area.

6) Increase information and education efforts designed to better inform the public in the surrounding area about the benefits of an NMCA. This should include the benefits for the environment as well as the economic benefits and how they will both assure the long term sustainability of the region.

7) Increase the number and frequency of discussions between all major stakeholders and government, and between each of the participating governmental departments.

8) Endeavor to resolve as many questions and issues as possible before officially designating the NMCA.
Report to Government

The following short report was compiled by Ian Fraser Stothart based on findings from the Masters of Environmental Management Thesis project “What are the implications of the proposed Southern Strait of Georgia National Marine Conservation Area (SSG-NMCA) for the southern BC ecotourism industry”? This report is not intended to be prescriptive but rather to simply outline the findings and make recommendations. Included in the recommendations are some that are based in part on the literature review of the Great Barrier Reef Marine Park experience. It should be expressed that some of the recommendations are already being considered and undertaken by all three levels of government and these recommendations are intended to reinforce those initiatives already underway. The full thesis in its entirety will be available through Royal Roads University upon its approval.

The main message from the ecotourism industry in the area is that they strongly support the formal designation of the SSG-NMCA. There are some concerns expressed however, surrounding some of the uncertainty about how the designation could affect their businesses. The main concern is that any new regulations not be too restrictive or burdensome to their activities and that any permitting structure be low cost, fair and simple to navigate. The industry would also like to see more done to protect the environment in the area with particular attention being focused on salmon and other fish stocks, as well as on the reduction of pollution threats.

Thank you for your participation in this research, your involvement is very much appreciated. The following recommendations are offered for your department’s consideration:
Recommendations

1) Establish an advisory committee to participate in decision making about the management of the park. The advisory committee should include members from government, First Nations and other stakeholder groups including ecotourism to build consensus through an ongoing adaptive co-management model.

2) Continue to use sustainability and ecological protection as the driver and first point of discussion when examining individual issues.

3) Try to minimize the number of new regulations.

4) Keep costs for any commercial permitting in the area low and make the permitting process simple and easily accessible.

5) Try to streamline new regulations to be similar to existing federal, provincial and municipal regulation in the area.

6) Increase information and education efforts designed to better inform the public in the surrounding area about the benefits of an NMCA. This should include the benefits for the environment as well as the economic benefits and how they will both assure the long term sustainability of the region.

7) Increase the number and frequency of discussions between all major stakeholders and government, and between each of the participating governmental departments.

8) Endeavor to resolve as many questions and issues as possible before officially designating the NMCA.
Report to the Southern BC Coast Ecotourism Industry

The following short report was compiled by Ian Fraser Stothart based on findings from the Masters of Environmental Management Thesis project “What are the implications of the proposed Southern Strait of Georgia National Marine Conservation Area (SSG-NMCA) for the southern BC ecotourism industry”? This report is intended to inform the ecotourism industry about the intentions of Parks Canada with regard to the proposed SSG-NMCA. The report is based on the findings of the research and includes recommendations that were developed and will be delivered to the governing bodies upon approval of the thesis. It should be expressed that some of the recommendations are already being considered and undertaken by all three levels of government and these recommendations are intended to reinforce those initiatives already underway. The full thesis in its entirety will be available through Royal Roads University upon its approval.

There are a few key points that were expressed by the various governmental departments that are directly related to the eco-tourism industry. Firstly, the idea behind designating the SSG-NMCA is to ensure the long term ecological and economic sustainability of the area. Due to the fact that it is written into the NMCA Act, permits will likely be required for any commercial activity within the boundaries if approved. There is a commitment by Parks Canada, which is supported by the other governmental participants, to ensure that any permits will be low cost and not overly burdensome to obtain. Any and all revenue from permits will be directly applied to conservation efforts within the park boundaries. Likewise, all the departments seek to minimize onerous new regulations and do not foresee any that would overly restrict any of the ecotourism activities that current take place in the proposed area. The governmental departments see the eco-tourism industry as an environmental leader and a potential ally in the success of the endeavor.
Governments seek input from industry on strategies to help the designation process and in helping develop policies in its governance model. The departments further express that there are many other stakeholders that use the area and input is required from all sectors to be able to produce a long lasting and successful NMCA. Lastly, the various governments would like the process to move faster, however the considerable complexities of the undertaking and a desire to get it right over getting it fast requires significant time to accomplish.

Thank you for your participation in this research, your involvement is very much appreciated. The following recommendations will be presented to each of the participating governments to help aid in their decision making processes:
Recommendations

1) Establish an advisory committee to participate in decision making about the management of the park. The advisory committee should include members from government, First Nations and other stakeholder groups including ecotourism to build consensus through an ongoing adaptive co-management model.

2) Continue to use sustainability and ecological protection as the driver and first point of discussion when examining individual issues.

3) Try to minimize the number of new regulations.

4) Keep costs for any commercial permitting in the area low and make the permitting process simple and easily accessible.

5) Try to streamline new regulations to be similar to existing federal, provincial and municipal regulation in the area.

6) Increase information and education efforts designed to better inform the public in the surrounding area about the benefits of an NMCA. This should include the benefits for the environment as well as the economic benefits and how they will both assure the long term sustainability of the region.

7) Increase the number and frequency of discussions between all major stakeholders and government, and between each of the participating governmental departments.

8) Endeavor to resolve as many questions and issues as possible before officially designating the NMCA.
Reference List


### Table 1

**Eco-tourism Questionnaire**

ECO-TOURISM QUESTIONNAIRE for RESEARCH THESIS  
Royal Roads University

*Please check one response for each question*

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) What is your capacity within your organization?</td>
<td>Owner [ ] Manager [ ] Other [ ]</td>
</tr>
<tr>
<td>2) How many years has your business been in operation?</td>
<td>[ ] yrs.</td>
</tr>
<tr>
<td>3) How often does your company operate in the proposed area (Map below)?</td>
<td>Never [ ] Occasionally [ ] Often [ ]</td>
</tr>
<tr>
<td>4) How many people are employed by your company?</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) Do you think that the Canadian Government needs to do more to protect marine areas in Canada?</td>
<td>[ ] Don’t Know [ ] Strongly Disagree [ ] Disagree [ ] Agree [ ] Strongly Agree [ ]</td>
</tr>
<tr>
<td>6) Do you support the idea of NMCA’s to help protect marine areas in Canada?</td>
<td>[ ] Disagree [ ] Agree</td>
</tr>
<tr>
<td>7) Do you support the idea of an NMCA in the Southern Strait of Georgia?</td>
<td>[ ] Disagree [ ] Agree</td>
</tr>
<tr>
<td>8) Would the designation of an NMCA in the Southern Strait of Georgia benefit your business?</td>
<td>[ ] Disagree [ ] Agree</td>
</tr>
<tr>
<td>9) Would you support the idea of licencing eco-tourism operators within the boundaries of an NMCA?</td>
<td>[ ] Disagree [ ] Agree</td>
</tr>
<tr>
<td>10) Do you think an eco-tourism licence for the SSG-NMCA would benefit your business?</td>
<td>[ ] Disagree [ ] Agree</td>
</tr>
</tbody>
</table>

| 11) What message would you give to Parks Canada if you could regarding the potential designation of an NMCA in the Southern Strait of Georgia? | [ ] Disagree [ ] Agree                                 |
| 12) What other concerns would you like included in this study? | [ ] Disagree [ ] Agree                                 |
Table 2

*Interview Guide*

1) What is your department’s specific role in the development of National Marine Conservation Areas (NMCA’s) in Canada?

2) What cross-jurisdictional challenges does your department see between all the governmental departments involved in the development of NMCA’s?

3) Is there broad public support generally for the development of NMCA’s in Canada?

4) Is this support/lack of support the same with regard to the proposed Southern Strait of Georgia (SSG) NMCA?

5) What stakeholder concerns has your department identified with regard to the SSG-NMCA?

6) While the eco-tourism industry (WW/ET) overwhelmingly supports the NMCA program, there is a concern that more needs to be done faster. Are there any strategies to increase the rate at which NMCA’s are approved?

7) There is a worry in the WW/ET industry that an NMCA designation in the SSG may mean increased regulations and restrictions. Does your department foresee the implementation of any regulations specifically aimed at the WW/ET industry?

8) The WW/ET industry expresses a general concern for fish stocks and particularly salmon in the area. Are there any specific strategies being contemplated to increase the protection of salmon and fish stocks within the proposed area?

9) The majority of WW/ET companies support the idea of permitting/licencing in NMCA’s but there is also concern about cost and structure if that were to occur. Has there been a discussion about keeping costs low and access easy for permits?

10) Would your department support the idea of licencing eco-tourism operators within the boundaries of an NMCA?

11) Does your department think an eco-tourism licence for the SSG-NMCA would benefit the stated goals of the federal governments NMCA development policy? How?

12) What does your department think the most important messages are for the WW/ET to understand from your department if the SSG-NMCA is approved?

13) Do you support the idea of a cooperative authority to govern decisions in NMCA’s like they have in the Great Barrier Reef?