COMMUNITY WATERSHED MANAGEMENT IN NEWFOUNDLAND AND LABRADOR: SUCCESSES, CHALLENGES, CAPACITY-BUILDING, FUTURE DIRECTIONS

by

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ABSTRACT

Out of the collapse of the commercial groundfish and salmon fisheries in Newfoundland and Labrador (NL) in 1992 and the resultant economic crisis, the provincial and federal governments implemented a new strategy for developing a high-value recreational salmon and trout fishing industry in the province. The goals were to create local employment opportunities in rural Newfoundland, devise improved resource management strategies at the community level, and foster an overall improvement in environmental stewardship through enhanced local decision-making. The program that emerged to achieve those goals came to be known provincially as *community watershed management* (CWM), an approach to resource management that aimed to share significant decision-making authority and management with local/regional non-governmental watershed groups. This new approach constituted a "rescaling" of governance, a term that describes the move from centralized modes of provincial and federal management policies, towards local and regional empowerment in the management of natural resources. Ultimately, the program did not achieve the intended level of success in the development of a recreational fishery for a number of complex reasons. The proposed changes to resource management became too politically contentious amongst stakeholders, the program failed to win support over a government bureaucracy resistant to structural changes, and the political will required to implement such an ambitious program faltered. While the provincial government's commitment to rescale environmental resource management and governance to the watershed level ultimately did not hold, there continued, and remains, a lasting grassroots movement

across the province at the community level in the form of continuing watershed management organizations.

This thesis fulfills two important inquiries: 1) to provide a historical overview of CWM and related recreational fisheries development policies in NL, and 2) to analyze the experiences of the organizations themselves, through the voices of their past and current members, as well as stakeholders in community, government, industry, and academia. The central argument of this paper is that implementation of rescaled environmental governance and management failed in NL due to a lack of secure funding and agreed upon longer term policy commitments, entrenched public opposition from a vocal minority based on fears of privatization of public resources, and lack of institutional readiness, both on the part of the provincial bureaucracy and the watershed organizations themselves. The result is that watershed organizations in NL have largely been left to forge their own direction. Critical to the success of this endeavor is remaining adaptive in nature, and integrative in approach while tackling the highly complex issues surrounding environmental management.

It is my hope that these insights may assist in future capacity-building efforts for governments and community-based stewardship organizations that are attempting to implement holistic, collaborative, and multi-level environmental management in NL and elsewhere. This insight has been achieved through document review and by conducting in-depth interviews with key informants engaged in community watershed groups throughout the province. The interviews have been analyzed using Mitchell's (2009) four contributing factors to policy implementation gaps combined with Robins' (2007) multiple-capitals model for assessing and building capacity. This analytical framework

allows for a critique of the strengths, challenges, and short-comings of small-scale, community-based watershed groups, an area of research that is weakly developed in academic literature. Significant institutional, social, and environmental learning that has occurred in these organizations and been captured through this research provides us with the building blocks for better future outcomes in community-based environmental stewardship practiced through local and multi-level decision-making and inclusive governance.

DEDICATION

This is dedicated to my parents, Gary and Rosanne (Dad and Mom).

ACKNOWLEDGEMENTS

I would be remiss if I did not take an important moment to acknowledge the help and guidance that I have received throughout this difficult but most rewarding journey. First of all, a very warm thank you is extended to all of the interviewees who agreed to give their time to a fledgling grad student looking to further his understanding on a very complex topic steeped in political, lets say, intrigue.

Within a culture deep set in tradition with the outdoors generally and with a wild species scarcely as cherished and symbolic as the wild Atlantic salmon in particular, the complexity of the attendant politics cannot be overstated. A deep abiding love and passion for the resource permeated all aspects of every conversation I had throughout this research. Where I have fallen short, and indeed where I do not pretend to venture, is in the finer work of doing this ethnography (for lack of a better word) any justice at all. I'll leave that to the experts.

But yes, a topic such as the management of Atlantic salmon has about as many opinions as there are people, and in this province, the passion for it swells. As do the stories. That I was so graciously invited into so many homes, from coast to coast, and offered tea, a seat at the kitchen table, and earnest conversation, I won't soon forget. I am forever humbled.

I happily acknowledge my supervisory committee: Dr. Kelly Vodden, Dr. Michael van Zyll de Jong, and and Dr. Stephen Decker. Thank you for your counsel and your patience. I hope it has proven worth your time as it has been mine.

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A thank you, as understated as one ever may be, also extends to the friends and community that I came to benefit from in my brief but profound time in Corner Brook. I feel as though I only took benefit and contributed little, skipped on the bill, and so you all will have to pay my tab. Or trust that its coming back in kind. I'll pay it forward!

Finally, to my family. Thank you.

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ACAP	Atlantic Canada Action Plan
ACOA	Atlantic Canada Opportunities Agency
ASF	Atlantic Salmon Federation
BSGSSG	Bay St. George South Salmonid Group
CASEC	Cooperation Agreement for Salmonid Enhancement/Conservation
CBRM	Community-based Resource Management
CORA	Citizens Outdoor Rights Alliance
CPT	Common Property Theory
CWM	Community Watershed Management
EBM	Ecosystem-based Management
ERC	Economic Recovery Commission
ERMA	Environmental Resources Management Association
FABEC	Freshwater-Alexander Bays Ecosystem Corporation
GREC	Gander River Ecosystem Corporation
GRMA	Gander River Management Association
IBEC	Indian Bay Ecosystem Corporation
IWM	Integrated Watershed Management
NL	Newfoundland and Labrador
NLWF	Newfoundland and Labrador Wildlife Federation
SAEN	Salmonid Association of Eastern Newfoundland
SCNL	Salmonid Council of Newfoundland and Labrador
SPAWN	Salmonid Preservation Association for Waters of Newfoundland

Chapter 1. Introduction

Within the province of Newfoundland and Labrador (NL), watershed management at the community level began to formalize in the early 1990s. Out of the decline and collapse of the commercial fisheries in 1992, the provincial and federal governments sought to identify, fund, and help innovate for economic development opportunities at local and regional levels. A key recommendation of various consultants and commissions within this period was investment in recreational inland fisheries, as well as experimentation with community-based resource management in order to develop this potential (Buchanan et al. 1994, House 1999). A community-based approach sought to localize benefits from the recreational fishery through economic development and increased employment, and to improve environmental management through a more inclusive and consensus-based approach (McNeil 1997). In the context of the fisheries collapse, it is difficult to overstate the imperative to create local employment in rural NL at this time. Equally, it is difficult to overstate the imperative to reform fisheries management and environmental stewardship practices in the wake of this historic collapse. As such, in many ways and forms, a crisis created unique opportunities.

Between 1994 and 1996 the provincial and federal governments initiated two separate programs to accomplish an inclusive and consensus-based approach to environmental management: a watershed management "pilot project," and a Model Rivers program in which funding for decentralized, community-based resource management (CBRM) was provided to bolster fish stocks, modernize environmental management practices, and create local employment opportunities (Allan 1996). This

experimental approach came to be known as *community watershed manag*ement (CWM) (Allan 1996). Subsequently, five watershed groups were either created or identified through existing organizations as the recipients of a cost-shared federal/provincial funding program over a five-year trial period. After that initial trial period, some of these community watershed groups continued to operate while others did not. This thesis explores the implementation gap of the CWM experiment by providing the political and social context in which the program was situated, as well as an analysis of the capacity-related challenges that watershed organizations have faced in NL.

1.1 Problem Statement

Mitchell (2009) describes the implementation gap between policy and practice as a result of four elements: *complexity* of the systems being managed, *conflict* amongst stakeholders, *uncertainty* about how natural systems work, and *change* because of both human and natural systems existing in constant flux and adjustment. In the context of NL, governmental experimentation with CWM and with community-based resource management more broadly has proven to be challenging at best. Of the five organizations that secured some level of funding under the 1996 provincial pilot project and Model Rivers program, only one remains in existence in a multi-dimensional stewardship capacity. The Indian Bay Ecosystem Corporation (IBEC) has endured since its inception in 1988 with fluctuating levels of organizational support and efficacy over the years. Since baseline government funding ceased after the initial pilot period, the organization has pushed forward in largely project-based work through securing grants and funding for research and stewardship initiatives from provincial and federal sources, private donors

and environmental NGOs, as well as the academic community. At present, the future of IBEC is highly uncertain due to its inability to secure longer-term funding commitments from government or other agencies (Pers. Comm., multiple).

Several other watershed groups exist in NL today that vary greatly in scale, dimension, and application (Vodden et al. 2013). However the focus of this research will remain within the scope of the five organizations involved in the pilot projects and Model Rivers program. Those organizations were: IBEC; the Bay St. George South Development Association; the Humber River Watershed Management Association; the Gander River Management Association (GRMA); and the Sandwich Bay Watershed Management Association.

Now 20 years later, no clear future directions are apparent for watershed management at the community level in NL, nor is there any current policy around CWM. Indeed, CWM as a policy program in NL is no longer practiced nor is there formalized support for localized decision-making in resource management at the watershed scale. While watershed management continues to be practiced to this day in very meaningful ways, in varying capacities, experimentation with CWM, the specific policy program, formally ended 1999 in the wake of public backlash and the Tobin Government's *Our Smiling Land* document (see Chapter 4).

1.2 Purpose Statement

The purpose of this research is to identify the successes, challenges, and/or limitations of CWM as well as key opportunities for capacity building in the context of small-scale, rural, multi-use watershed organizations in NL. Capacity in this context is

defined as the ability of an organization to carry out work and fulfill its mandate and is considered important within this study because the survival and success of these small, independent organizations is dependent on their existing capacities and capacity-building (and maintenance) skills.

CWM was one of the first instances of a management arrangement resembling a multi-stakeholder commitment focused at the local level in the province. As such, it was an early iteration of *integrated* management at the watershed level. Integrated resource management approaches embody the holistic attempt to manage a diversity of environmental resources, stakeholders, and socio-ecological interests within a given space (Bakker 2006). This experimentation with an integrated approach provided opportunities to learn from the experience.

Moreover, there exists a literature gap in the experience of small-scale rural watershed groups that aspire to integrated management approaches (Vodden 2009; Robins 2007). One review of Canada-wide watershed group capacities undertaken by Robins (2007) excluded NL on the basis of criteria relating to scale. The focus of watershed research undertaken by Robins and others is largely fixed on larger-scale organizations and regions, rather than on small-scale, rural watershed organizations. In exploring implementation barriers and capacity building efforts for CWM in NL, this research will contribute to the literature related to small-scale, rural, watershed management organizations and their unique challenges.

In summary, this research has been conducted for two important purposes: 1) to provide a historical overview of CWM and related recreational fisheries development in NL, providing key policy insights, and 2) to analyze the experiences of the organizations

themselves, through the voices of their members and committed stakeholders in community, government, industry, and academia as a basis for future capacity-building for community-based stewardship organizations that may attempt holistic, collaborative, and multi-level environmental management in NL and elsewhere.

While all five organizations involved in the CWM pilot projects and Model Rivers program were examined, the primary location for this inquiry has been the Indian Bay watershed in central Newfoundland. IBEC as an ongoing organizational entity is used as a case study for examining CWM as a policy approach in NL as well as potential linkages between watershed management and organizational capacity-building through adherence to integrative principles, including challenges and successes in attempting to create these linkages.

1.2.1 Research questions

Pursuant to this purpose, this research has endeavoured to answer the following research questions:

1. What factors led to the rise and eventual discontinuation of Community Watershed Management as a provincial policy approach?
    - What roles have watershed groups played in the scheme of management, economic development, governance, and/or policy formation?
    - How do these roles compare to the original intent of the policy?
    - What implementation challenges were present in the context of NL's rural watershed management organizations and related provincial policy?

2. What are the key challenges, successes, and limitations that smaller scale,

non-governmental, rural watershed management organizations face?

- What capacities do watershed management organizations have for overcoming these challenges and limitations or building on their successes?
- How have these capacities been built over time?

The significance of this research lies in the gap between CWM as a policy option, and the reality of struggling organizations related to their capacity, financial and otherwise, to meet their mandate and accomplish the ideals of integrated management at the watershed level. Indeed the results of this study suggest that implementation of CWM has not been an easy process – now 20 years after the initial pilot project launch in NL, CWM as a provincial policy has ended and these watershed groups have either entirely disbanded, or are struggling to survive. No comparable study to date has been undertaken to assess or evaluate the experience with CWM originally conceived in the 1996 pilot project and Model Rivers program.

1.3 Methodology and Methods

This research is primarily qualitative, undertaken from an interpretivist perspective, which recognizes that research is influenced by the values or goals of the researcher and that reality may vary, across time, individuals or cultures for example rather than being deterministic (Patterson and Williams 1998). This research uses a comparative perspectives of CWM experiences in NL, but with IBEC as a primary case study of a watershed organization from the initial pilot project in 1996. IBEC as an organizational entity, and the Indian Bay watershed, is a major focus of the research.

Document review and interviews are primary data sources, analyzed through the use of a conceptual framework described further below. In addition to academic sources accessed to library databases, documents were analyzed from the archives of watershed organizations, Fisheries and Oceans Canada, the Centre for Newfoundland Studies, as well as personal archives of current and former stakeholders.

1.3.1 Conceptual framework and analysis

Conceptual frameworks are most commonly associated with qualitative research, and are further defined as "products of qualitative processes of theorization" (Jabareen 2009, 50). Additionally, the framework possesses ontological, epistemological, axiological, and methodological assumptions that require triangulation in order for validity within the paradigmatic operation (Jabareen 2009). McCaghie et al. (2001) describe the conceptual framework as serving two critical functions: 1) identifying the research variables, and 2) clarifying the relationships amongst those variables. Under these guiding principles, a conceptual framework has the potential to scaffold the research data and therefore assist in making meaning of research findings (Smyth 2004).

The first key elements of the conceptual framework for this study are the concepts of *integrated* and *community-based* watershed management, discussed further in Chapter 2. The significance of *integrated* in this context is the participatory approach to managing a resource in which all voices are heard. These terms and the related set of ideas draw attention to the importance of localized and shared decision-making in the management of natural resources within the watershed. Second, Mitchell's four contributing factors to policy implementation gaps (*complexity* of the systems being managed, *conflict* amongst stakeholders, *uncertainty* about how natural systems work, and *change* within human and

natural systems existing in constant flux and adjustment) have defined the dimensions of the policy-related challenges that must be overcome in order to succeed. Third and finally, Robins (2007) provides a conceptual framework for understanding the critical elements involved in capacity building for a watershed organization (see Table 1).

Four Capitals Capacity-Building Framework

Human Capital	**Social Capital**		**Institutional Capital**	**Economic Capital**
	Cognitive (social norms)	**Structural (networks)**		
• Knowledge • Skills • Experience	• Trust and reciprocity • Values, attitudes and behaviour • Commitment • Motivation • Sense of place	• Networks • Relationships	• Governance arrangements	• Infrastructure • Financial resources

Table 1. A conceptual framework for understanding the elements of capacity building (Robins 2007).

A focus on capacity was added to address what was perceived as a key missing element in Mitchell's four contributing factors. Capacity has been documented as a key factor in the outcomes of watershed management efforts and is critical to an organization's ability to cope with and adapt to complexity, conflict, uncertainty and change (2007, 2015). This framework is built from the multiple-capitals theoretical approach to capacity building: the integration of ***social***, ***human***, ***institutional,*** and ***economic*** elements of capacity, or capitals that comprise an integrated model for understanding and assessing capacity at varying levels, such as that of an organization, community, region etc. (eg. Beckley et al. 2008; Mendis-Millard and Reed 2007; Putnam

1993). The so-called "four-capital model" was first articulated by Ekins (1992), and provides a holistic representation and basic requirement of capacity-building activities (Robins 2008). These four capitals coalesce and contrast in order to determine relative strengths, weaknesses, and opportunities for future organizational capacity-building. The notion of adaptive capacity, presented by Plummer and Armitage (2014) is also taken into account in recognition of Mitchell's four policy challenges noted above.

This framework was used to help frame the study, generating interview questions for example, that explore the capacity potential of non-governmental watershed organizations in the form of a multiple-capitals approach to capacity-building. It was also used in the analysis of data to assist in identifying implementation challenges, important capacity variables and their relationships. Interviews were manually transcribed and coded deductively for elements in Mitchell's and Robins' frameworks. Patterns were also sought that did not necessarily relate directly to any one element of the framework in an attempt to ensure the framework guided but did not restrict potential findings. Finally, contrast and comparison between watershed groups throughout NL and the rest of Canada (through literature review) provided additional insights.

1.3.2 Case study

Stake (2006) describes a case study as a system with working, purposive parts that lends itself well to qualitative and quantitative research alike. As Stake (2006) further describes, the qualitative case study "was developed to study the experience of real cases operating in real situations" in which it will "reflect complex, situated, problematic relationships" (10). In relation to the challenges and successes associated with watershed

organizations in Newfoundland and Labrador (NL), this case study has accordingly examined the complex relationships involved within a particular context. Overall design of an effective case study encompasses a problem definition, rigorous design, data collection, data analysis, composition and ultimately reporting (Yin 1984).

The rationale for selecting IBEC as a primary focus for this study is that it is the only remaining organization of the five original pilot projects that continues to exist and embody a multi-dimensional stewardship mandate at the local/regional watershed level in NL[1]. Moreover, the organization has demonstrated a level of adaptive capacity and resilience, as it continues to operate today, almost 30 years since its inception. IBEC was one of the five groups involved in the CWM pilot project/Model River planning programs in the mid 1990s that was originally funded through the Cooperation Agreement for Salmonid Enhancement/Conservation (CASEC), a federal/provincial agreement to revitalize and develop the NL salmonid industry. It is the only organization of these five that still exists today as functioning within its original mandate. It therefore provides an important opportunity to analyze the ways in which this organization has been able to sustain itself while others have not. The organization is in many ways a different or evolved iteration of its former self, as time has passed and priorities shifted, while still maintaining a core mandate. As such, it is a uniquely instructive case for learning and capacity-building for watershed management in NL and beyond.

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[1] A community group on the Gander River has as of 2014 re-established a presence as the Gander River Ecosystem Corporation (GREC), which is a non-profit community group, concerned with the health of the Gander River watershed and protecting wild Atlantic Salmon populations. As it was not part of the original CWM program, GREC is not considered within the confines of this study related to particular CWM issues. It is however looked to for broader examples of resiliency and resurgence of community-based watershed initiatives in NL.

An additional element of the organization's uniqueness is that, at least originally, the species-orientation of the recreational development efforts was towards trout and not salmon. For this reason, the organization operates somewhat within a category of its own relative to the other watershed groups involved in the CWM program of the 1990s. While there are some efforts towards salmon angling in the way of habitat restoration and creel surveying, in Indian Bay the focus has always been the famous, trophy-sized brook trout.

1.3.3 Qualitative in-depth interviews

It is important that researchers choose the right techniques for data collection and analysis, as well as to understand those techniques well enough to employ them properly and within the proper contexts (Babbie 1998). The qualitative, interpretivist research approach lends itself well to some particular methods more than others. Mertens (2010) describes how interviews, document reviews, and formal observation are the leading methods employed within this paradigm. This research uses in-depth interviews as the primary method of inquiry, with archival document review serving as supplementary data.

Interviews were conducted from November 2013 to September 2015. Interviewees included current and former board members of IBEC and other watershed groups in the province, as well as other key stakeholders within the organizations and communities more broadly. These individuals included founding members and key political actors at the local and provincial levels. The interviews were semi-structured in nature, with the intent of opening the floor for the interviewee to share and create new knowledge. The 22 interviews ultimately conducted included:

- 8 IBEC-affiliated interviewees
- 8 other watershed group-affiliated interviewees (FABEC, ERMA, BSGSSG, ACAP, Humber, GRMA, GREC, Sandwich Bay)
- 2 federal DFO-affiliated interviewees
- 2 provincial government-affiliated interviewees (IBRD, ERC)
- 1 NLWF-affiliated interviewee
- 1 former outfitter/lodge owner

In reality, many interviewees have performed multiple roles over the years, both professionally and personally, and so there is considerable overlap beyond and across the categories denoted above. The interviews were conducted in-person where and whenever possible; only three telephone interviews were conducted for practical purposes. Interviews followed a scripted guideline based around Robins' multiple-capitals framework (see Appendix A for the interview guideline) but allowed both the interviewer and respondents to follow related lines of inquiry.

An important aspect of the construction of the interview guideline was the flexibility to adapt to new circumstances. Research is a process of continuous change, design change, and reformulation (Kvale and Brinkman 2009). The interview guideline served as exactly that: a guide to a purposive conversation. Indeed, flexibility and the allowance for change when dealing with such variables are critical (Mertens 2010). As continuous learning and adapting to new circumstances created through that learning

process necessitates change over time, it was important to use the conceptual framework to ground but not restrict the interview process.

1.3.4 Document review

Documents for this study were selected on the basis of relevance, both historically, in the development of a specific historical narrative, and politically, in the pursuit of a grounded understanding of policies, programs, and institutions related specifically to CWM and CASEC. Documents were drawn primarily from the archival collection at the Centre for Newfoundland Studies, as well as from community watershed organizations' private archives. Primary documents included promotional literature on government program funding, academic studies, consultancy reports and feasibility studies, and internal memoranda and correspondence within organizations, including meeting minutes and transcripts of publicly held forums. Documents were analyzed primarily through an inductive approach on the basis of the above-noted relevance but with deductive aspects, seeking information related to the research questions and conceptual framework detailed above.

1.3.5 Ethics in Research

This research relies on the insights of human participants knowledgeable about capacity issues in environmental management at the organizational and watershed level. Because of this human participation, special consideration is required. In accordance with the Grenfell Campus Research Ethics Board, the proper clearances have been granted

(GCREB Reference number: 20140659). Recorded (19) as well as un-recorded (3) interviews were the primary means of gaining first-hand, primary source data. Un-recorded interviews were conducted at the interviewee's request. Concerns relating to privacy and confidentiality have been thoroughly addressed. The interview content, subsequent analysis and reporting have focused not on the individual, but rather on the broader issues within the field of study. Personal information and identification of interviewees thus has not been revealed. Signed consent has been strongly encouraged by all participants, though verbal consent has been obtained and considered sufficient in the case of interviews conducted via telephone. Interviewees have acknowledged an express understanding that participation has been voluntary, and that withdrawal was welcomed at any point throughout the study.

One further ethical consideration is the admission of this researcher's proximity to and familiarity with the particular case study. Prior to conducting formal interviews with participants connected to IBEC in and around Indian Bay, NL, the researcher spent the summer of 2013 in that town conducting work as part of a separate but related research project on drinking water quality within the community. The researcher was partially employed by IBEC throughout this period. A requirement of this position was to engage with the public as well as IBEC's board of directors to access information on issues relating to drinking water quality in the immediate area.

Having lived and worked in the Town of Indian Bay in this period, and working closely with both IBEC and the community, these are important admissions in terms of the *positionality* of the researcher. England (2006) defines positionality as the ways in which people will inevitably view the world differently through "embodied" positions of

ourselves relative to others. Because of the proximity, previous working experience, and resulting relationship building with the community, the objectivity and detachment of the researcher has inevitably been affected. However, the nature of this research, from an exploratory, qualitative perspective requires such interpersonal developments (Stake 2010). In the name of diligence, the researcher has sought to strike a balance between interpersonal development for the sake of knowledge creation on the one hand, while nullifying or minimizing bias on the other (Mertens 2010). This has been achieved through regularly considering how positionality might be affecting analysis of research findings, and honestly and openly addressing those concerns throughout the text. Having said this, this positionality needs to be recognized as a strength. As the research and the researcher's perspective is grounded in lived experience, this adds to the depth of analysis of this inquiry.

1.5 Overview

The forthcoming chapters will be presented in the following manner:

Chapter 2 will focus on relevant literature in the fields of rescaled environmental management and governance, community-based and Integrated Watershed Management and capacity-building at the watershed level. This chapter will further outline the conceptual framework of the "four-capitals" approach to capacity-building at the organizational/institutional level, and relate it to the implementation gap problem of Mitchell's description.

Chapter 3 will provide a background on the history and political implications of natural resource development in NL with respect to commercial and recreational

fisheries, new approaches to resource management in the face of crisis, and the imperative to change and adapt. This chapter will review the CWM policy program, its origins in the fisheries crises, and the attempt to develop a recreational fishing industry in rural NL. It will detail how seemingly as quickly as its rise, CWM and associated broader commitments to rescaled fisheries and watershed management unraveled in the face of bureaucratic obstruction, lack of institutional readiness, and small but vocal grassroots political opposition in the name of 'traditional rights' and common pool access to outdoor resources. Finally, this chapter will provide a case study on IBEC as an institution that has evolved, adapted, and proven resilient in meeting its mandate in the almost 30 years of the organization's existence.

Chapter 4 will revisit of the concepts of CWM and Integrated Watershed Management (IWM), while making a case for IWM as a holistic and resilient policy option for watershed management at the local and regional levels. Further, an argument will be made for a more integrated and resilient theoretical model of IWM, one that may better serve the holistic interests of watershed areas and the communities within them. This chapter will draw conclusions related to capacity-building and organizational resilience, and also discuss adaptive capacity in the face of ever-changing political priorities, economic and environmental realities. These findings relate back to the conceptual and analytical frameworks by which the analysis was framed. By examining organizational capacity in the face of and in relation to persistent policy implementation problems, we may propose avenues through which to achieve better future outcomes.

Chapter 5 will draw overall conclusions, future directions, as well as potential policy options for watershed management in NL, both now and into the future.

Chapter 2. Reviewing the Literature

2.1 Governance and the Rescaling of Environmental Management

Government and governance are terms used to describe the ways in which a people in question are governed, or govern themselves. Government describes the institutional authority vested in deciding outcomes, whereas governance describes a decision-making process and who ultimately gets to decide (Bakker 2006). An extreme and idealized distinction between the two concepts, for the purpose of example, is that *government* represents a top down approach in which decision-making power is hierarchical and centralized, whereas *governance* is a flattened schematic based on power sharing, networks, and collaboration (Weiss 2000).

Abrams et al. (2003, 11) define governance in the following way: "Governance is the interactions among institutions, processes, and traditions that determine how power is exercised, how decisions are taken on issues of public and often private concern, and how citizens or other stakeholders have their say." Gibson (2014, 32) describes four common elements of governance: **process**, in which formal and informal arrangements are involved; **collaboration** amongst diverse local and regional actors that take part in the process; **collective decision-making** that will ultimately strive for, though in reality not necessarily achieve, consensus; and finally, **engagement beyond government** in a process involving all stakeholders (government and non-government) through an "autonomous and legitimate organization." Increased local control and self-organization are corner stones of effective governance arrangements. Without these qualities, governance does not exist in a functional sense, but rather traditional government perhaps with certain aspects of downloading of their responsibilities (Vodden 2009).

Other authors have highlighted a similar type of governance arrangement in *co-management:* the sharing of responsibility and decision-making amongst interested parties as part of a multi-level rescaling of governance (Plummer and Arai 2005; Plummer and Armitage 2010). In some cases, the same general devolution of responsibilities and decision-making has been recommended in other natural resource fields such as forestry and fisheries (Agrawal 2003; Armitage 2005; Marshall 2007; Ribot 2002).

This shifting of responsibility from centralized governmental 'command and control' type governance not only seeks to promote arrangements more resembling "bottom-up" local governance in dealing with persistent issues such as development and climate change (Brandes and Maas 2006), but presents significant opportunities for local participation and collaboration in the decision-making process (Stedman et al. 2009). Moreover, collaborative and multi-level governance is purported to enhance efficiency, equity, democracy, and accountability in the management of complex ecosystems (Ribot 2002).

The term *collaborative governance,* as a particular governance form, is in large part a reaction to the failures of traditional, technocratic centralized government arrangements (Ansell and Gash 2007). Because governance as a current concept is in principle collaborative, democratic, and participatory, the term *collaborative governance* almost represents a tautology. It is nonetheless a useful term in explicating collaborative governance as a shared and iterative process. Collaborative governance at its core attempts to "create, interpret and apply policy through the participation of multiple stakeholders" (Gibson 2014, 38). It is this multi-stakeholder approach, involving non-

traditional policy actors in the process of decision-making, that defines collaborative governance (Gibson 2014). Collaborative governance involves sharing of knowledge, resources, power, and responsibilities. Vodden (2015, 168) explains that "by identifying and developing shared goals, norms, and even values through both formal and informal governance processes and structures, synergies are created that allow collaborators to achieve more together than individually" (from Longoria 2005).

Vodden (2015) points out that "watershed management is one of the oldest and most widespread forms of collaborative governance in North America" (from Lubell et al. 2002, 170), and that water governance and management more specifically is a subject of evolving structures and processes. At the federal and provincial levels, Bakker (2006, 16) describes government policy in this respect as being at a "crossroads" with respect to approaches to water governance and water management.[2] Numerous authors describe a move, or rescaling, in recent years towards decentralized modes of water governance (Andonova and Mitchell 2010; Bakker 2006; de Loe and Plummer 2010; Fabricius and Cundell 2010; Plummer and Armitage 2010). An important element of this rescaling is adherence to the principle of *subsidiarity.* Marshall (2007, 4) describes subsidiarity in the following way: "Any particular task should be decentralized to the lowest level of governance with the capacity to conduct it satisfactorily." This attempt to rescale environmental management opens opportunities at the local and regional levels for local

[2] As Bakker (2006) describes, 'water governance' and 'water management' are not interchangeable terms. Water governance refers to the policy decision-making process and 'who gets to decide,' whereas water management refers to the operational approaches used to make those decisions. This research takes into account both of these definitions. Ultimately, the desired outcome is better *management,* though we obtain the tools to fulfill this aim through better *governance*. While there is great overlap in definitions and applications, this is an important distinction between the two concepts, which this research endeavors to elucidate.

and ‘non-state’ actors to participate in the process (Boyd and Folke 2012; de Loe and Kurtzwiser 2007).

Despite the recognized benefits, it should be noted there are legitimate concerns regarding governance arrangements. Many fear that traditional governments are ill-equipped and perhaps institutionally incapable of sharing in decision-making processes (House 1999). In many cases, concerns over downloading responsibilities without providing the necessary resources to carry out those responsibilities, as distinguished from true power sharing in the decision-making process, are well-founded (Vodden et al. 2013).

2.1.3 Environmental governance

Governance in the realm of environmental concerns tackles the limitations to conventional “command and control” approaches to environmental management and is recognized throughout academic literature as a means to bridging the shortcomings of traditional approaches (eg. Holling and Meffe 1996; Kettl 2001; Weiburst and Meadowcroft 2014). Governance approaches aimed towards environmental management do emerge with slightly different names, and indeed can take divergent meanings (e.g. adaptive governance, adaptive co-management, co-governance) and differ in their points of emphasis. However, consistent with the collaborative governance approach presented above, Plummer and Armitage (2014, 5) argue that there is a common thread in that “making environmental governance operational requires collaboration among heterogeneous actors with diverse interests, institutions that are flexible and nested across scales and levels, and analytic deliberation that develops understanding through multiple

knowledge systems." Through this lens, I view the ideal as well as practical task of watershed management as an integrated, holistic approach that embraces multi-level and collaborative governance efforts as a way of guiding management of complex socio-ecological watershed systems, in this case in the context of NL.

2.1.2 The watershed as a unit of management and governance

Arguably, the watershed is an ideal unit in which to engage in ecosystem-based governance and, ultimately, management because its boundaries are largely natural rather than purely political or an otherwise human in their construction (Pereira 1989; Slocombe 1998). Often synonymously referred to as drainage basin, river basin, or catchment, a watershed may be defined as a "geographic area consisting of all land that water flows across, under, and through on its way to a particular body of water" (Vodden 2009, 204). These terms describe an area comprised, importantly, of a hydrologic cycle taking place within a distinct and unique ecosystem. Because of this mostly natural boundary along hydrologic lines, the watershed is considered an ideal unit from which to manage varying layers of resources within that particular ecosystem (de Loe and Kurtzwiser 2007).

While the concept of the watershed has alternately been referred to as a "patchwork of socioeconomic and biophysical processes" (Fight et al. 2000, 1), suggesting that watersheds are as much drawn along socio-political boundaries as natural ones, the watershed level holds as a highly credible unit for localized environmental management (Bakker 2006). Watersheds can be drawn along various and nested scales, which can also be merged into much broader river basins for larger levels of

administration and management, allowing for adaptation and flexibility in management design (Brandes et al. 2005).

Regardless of technical ambiguities or subjectivities with respect to delineating watershed boundaries, the devolution of watershed management actions and policies must be taken in the context of watersheds and the human communities in them (Heathcote 2009). Previous research and experience suggests a critical link between social, economic, and environmental footprints when discussing watershed management: ultimately, as a unit of environmental management, watersheds must be meaningful to the human actors within them. This further legitimizes the attempt to rescale environmental management taking ecological delineations into account together with a community-based approach.

A move towards watershed-level management in the context of NL, as with anywhere, requires consideration of the unique social and environmental features of the watershed or drainage basin area in question. Watershed areas in this province may be as large as the Gander, Humber, or Eagle Rivers, comprised of thousands of ponds and feeder systems, or as small as the Indian Bay watershed in the Bonavista North region, a catchment area of approximately 700 square kilometers, comprised of 16 ponds and several brooks (IBEC 2015). With adherence to appropriate scale and the need for integrated approaches that take into account the uniqueness of the watershed in question, a community-based watershed management approaches would reflect and act in accordance with the socio-ecological systems in question.

2.2 Approaches to Watershed Management

As discussed above, rescaling towards local management presents opportunities and challenges with respect to shared decision-making, improved environmental outcomes, and models for efficiency (Wesche and Armitage 2010). The concept of community-based resource management (CBRM), or similarly community-based natural resource management, implies resource management that takes place at the local level with involvement and therefore an expectation of buy-in from community and regional stakeholders (Mountjoy et al. 2012). CBRM is described as a collaborative and participatory approach to resource management that recognizes the opportunity for multi-level collaboration, involving a key role for local level actors working in collaboration with senior levels of government (Vodden 2009). This in turn opens significant opportunity for communities and local residents to engage in ecosystem management and environmental stewardship (Sabatier et al. 2005).

Common Property Theory (CPT) is an important heuristic in understanding resource management that is often linked to CBRM. CPT is used to explain the problems of managing what are called common-pool resources – primarily in the areas of fisheries and forests – and the risk of overuse and degradation as a result of human behaviours (Pokrant 2011). Seminal works in this area of research by H.S. Gordon (fisheries management) and Garrett Hardin (tragedy of the commons) have centered on the destruction of a resource as a result of uncontrolled access and under-valuation. While some authors have used CPT to argue for privatization and market-based approaches, a common focus of CPT has been the potential for small-scale, community-based initiatives in more effectively managing common-pool resources (Kerr 2007). As the

failures of "top-down" and market-based policies and management tools are increasingly evident, CPT has been an important guiding theory in moving towards rescaled approaches to resource management (Agrawal 2001). Kerr (2007) argues that watersheds are a common pool resource, pointing to multiple challenges with self-governance of common pool watersheds by local institutions. He further suggests that watershed management has been most successful at what he described as the microwatershed level, wherein local management may be nested into larger systems for broader integration of management rather than fractious localism.

As a concept, CBRM is complimentary and holds similar characteristics to decentralized watershed management, however the term does not specifically describe the scale at which the management efforts take place (in this case, from the perspective of the watershed). The focus on CBRM in this study is watershed-specific management and particularly community watershed management.

2.2.1 Community watershed management

An iteration of a rescaled, community-approach to environmental resource management was experimented with in NL starting in the early 1990s. The specific term devised in this instance was *community watershed management* (CWM), coined in part through academia, the salmonid conservation community, and consulting firms contracted through the provincial and federal governments. As a concept, CWM sought to empower local decision-making in the management of primarily wild Atlantic salmon stocks through revised land-use management planning, for the purpose of developing a

recreational fishery, and ultimately towards improved environmental management outcomes. CWM indeed shared many characteristics with rescaled governance and localized management approaches such as that of CBRM. There were many purported environmental, social, and economic benefits of CWM (LGL 1992):

> 1) encouragement of respect for resources and the environment,
> 2) cost effectiveness,
> 3) allowance for government and watershed groups to more effectively target key issues and challenges with respect to environmental management, and,
> 4) the ability to localize economic benefits.

The program was modeled off of extensive research of similar management/ governance arrangements elsewhere in the country, primarily Ontario and Quebec (Pers. Comm., GRMA1). As envisioned CWM was, however, a highly specific policy program that was uniquely tailored to the context of NL and the attempt to develop the recreational Atlantic salmon (and later trout) fishery While adhering to principles of CBRM, the program ultimately was development-focused in the arena of recreational fisheries development and management, and thus lacked in commitment to more holistic, dynamic principles of watershed management. CWM, as this paper argues, was an early iteration of a more integrated and collaborative environmental management program in NL that, in part because it lacked these aspects in terms of implementation, ultimately did not succeed.

CWM as a program, policy directive, and experiment with localized resource management in NL will be explored in further detail in Chapters 3 and 4.

2.2.2 Integrated watershed management

The concept of *integrated watershed management* (IWM), by contrast to the CWM program, embodies the holistic approach of managing a diversity of environmental resources and stakeholders – a suite of *land-use issues* more broadly – in determining optimal management outcomes within the given space (Heathcote 2009). IWM as a theoretical perspective works in complimentary fashion with CBRM and other similar concepts in tailoring a management approach and governance structure to the specific needs of the area and the communities there within.

IWM as a theoretical perspective is an increasingly cited holistic governance process for achieving strong environmental management at the watershed level (Beheim et al. 2010). Environment Canada (2010) defines IWM as a "multi-disciplinary and iterative process that seeks to optimize the contribution of aquatic resources to the social, environmental, and economic welfare of Canadians, while maintaining the integrity of aquatic ecosystems, both now and into the future." Heathcote (2009) describes IWM as "a continuous social process intended to move a community closer to its goals for environmental quality" (p. x). IWM encompasses concepts of health, well-being, and sustainability – it is regarded as a means to improve ecosystem health in conjunction with societal health and well-being, through participation, involvement, and ultimately improved environmental quality (Veale 2010). As far as integration of complex social

and environmental processes, Veale (2010, 13) identifies the process of *integration* as necessarily taking place within and along eight key areas:

1) Resource issues, goals, and outcomes,

2) Research disciplines and scientific methods,

3) Geographic or political boundaries,

4) Institutions (from both organizational and operational perspectives),

5) Public and private funding,

6) Social or sectoral systems,

7) Spatial and temporal scales, and

8) A wide array of stakeholders.

Integration across this diverse and holistic set of categories works towards the development of resiliency and adaptability: resiliency in the sense of 'hardiness' to complex social and ecological change, and adaptability in the sense of coping with complex change and emerging new realities (Boyd and Folke 2012). IWM is multi-dimensional and dynamic as a system of governance: it not only requires devolution of policy decision-making from the top-down, but requires significant buy-in from the bottom-up (Mitchell 2005).[3] Thus in order to fully integrate towards a theoretical approach resembling IWM, a truly holistic vision of stakeholders working together across

[3] 'Top-down' may be understood as policy and decision-making authority, in this case the provincial and federal governments. Conversely, 'bottom-up' may be understood as driven by the grassroots or community level, from the physical places and communities that exist within them. These terms carry no value judgments in terms of top being 'good' and bottom being 'less good.'

multi-disciplinary, multi-level, and multi-stakeholder engagement must be embraced. To this end, IWM and adherent governance arrangements must be equipped with, or in time develop, the necessary capacity to meet the demands of the holistic dimensions it espouses.

Figure 1 (below) depicts what Elkington (1994) first described as the "triple bottom line" of environmental, societal, and economic foundations for developing sustainable solutions to development goals in a holistic fashion. Likewise, this is the foundation for IWM – creating a critical link between these three bottom lines in order to manage all activities within a watershed in a sustainable, inclusive, holistic manner.

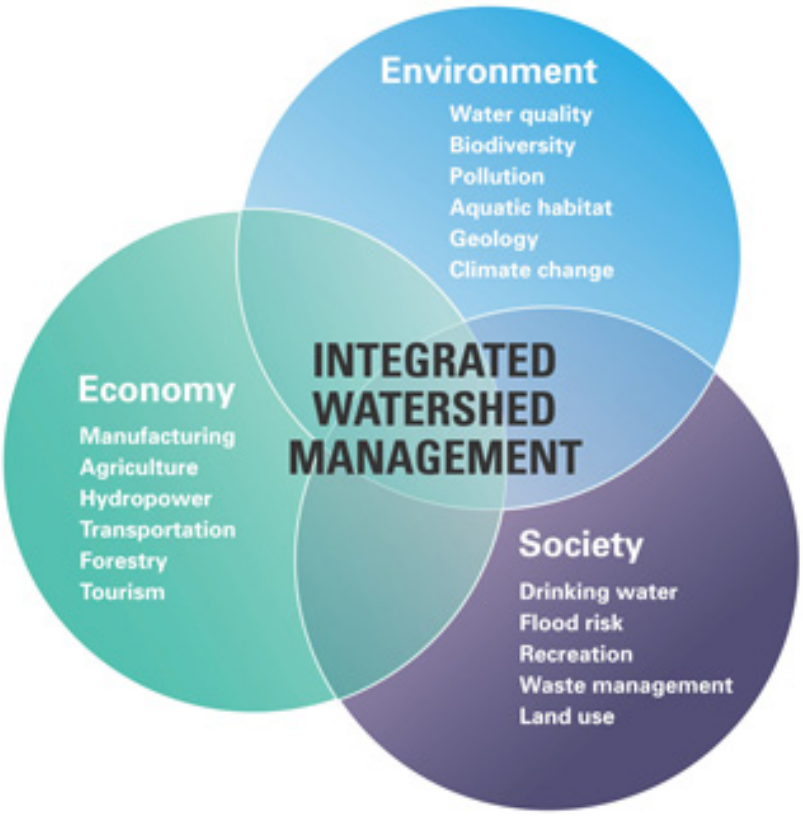

Figure 1. Aspects of integrated watershed management (Conservation Ontario 2015)

There are many governmental and non-governmental entities that are involved in the myriad of land-use issues taking place within a watershed. The challenge is to bring these interests together through an integrated framework of governance in order to maximize welfare, the public good, and environmental stewardship imperatives. The accounting for stakeholders across all of these interests and uses creates the foundation for strong governance that will ensure democratic and inclusive decision-making. IWM is a rational approach through which to strive towards bridging complex ecosystem management objectives and a diverse set of stakeholders.

Also aligned with integrated approaches to environmental management is Ecosystem-based Management (EBM), a relatively new approach (McLeod and Leslie 2012) in which managers and decision-makers meet multiple and potentially conflicting objectives in the pursuit of healthy and resilient ecosystems (Link 2010). EBM is diverse, socially inclusive, and evidence-based (Link 2010). As argued by Leslie and McLeod (2007), EBM embeds within it resilience through embracing *connections, cumulative impacts,* and *multiple objectives*, and that moving forward "requires synthesizing and applying knowledge from across the social and natural sciences as well as the humanities" (3).

2.3 Capacity-building in Watershed Management

The concept of capacity-building is broad, contains multiple meanings, and is diverse in its scale (Lyons and Reimer 2005). Indeed, capacity-building applies to development goals from those that are as far reaching as international development, to

rural and regional economic development, to development at the level of the institution or even individual (Gibbons et al. 2002). Capacity-building in rural economic development, environmental management, and rescaled governance are interlinked and relevant to this research, however this study will focus on capacity building at the level of the watershed institution/organization.

Capacity building is described as both a process and an outcome, both dynamic and multi-dimensional (Goodman et al. 1998). The capacity building framework employed in this study reflects an integrated and reinforcing set of activities that address these individual, organizational, political, economic and structural elements (Robins 2007). As outlined in Table 1 (Chapter 1), Robins (2007) identifies four types of capacity of capitals as part of this framework (human, social, institutional and economic). The human side to an organization relates to the people actively engaged within the organization itself, the 'human resources,' that give the organization its livelihood. Such qualifications relate to knowledge, skills, expertise, and experience held by members within a diverse group of committed members and stakeholders (Robins 2007).

Social capital at the organizational level relates to the organization's relevance to the socio-cultural environment that it operates within. While there are many definitions of social capital, the concept generally refers to the "activation of actual or potential resources embodied in communities stemming from a durable network of relationships or structures of social organization" (Roman and Moore 2004, 4). In other words, social capital might be understood, for the purpose of this study, as an organization's relationships within and across their organizations and their communities. If the organization does not enjoy a broader public support network, it will cease to operate in a

social environment that requires shared values for an organization to take off in the first place and support for it to continue. Robins (2007) divides social capital into two subsets: 1) Cognitive social capital, relating to: trust and reciprocity; values, attitudes and behaviours; commitment; motivation; sense of place (differences, commonalities, importance to successes and challenges), and 2) Network social capital, relating to: networks, relationships, and the importance of affiliation (Robins 2007).

Institutional capital is comprised of governance arrangements. Finally, economic capital is comprised of an organization's infrastructure and financial resources available in order to meet its mandate, 'keep the doors open,' and achieve long-term financial sustainability. Infrastructure factors into economic capital and can be measured in terms of physical assets (Robins 2007). In the case of watershed groups in NL, for example, this could include ATVs and snowmobiles with an organizational logo for the purpose of conducting work within their watersheds, as well as office buildings or cabins for the purpose of research operations. These assets are multi-functional, as they not only allow organizations to carry out their daily work, but become awareness raising capacity-building tools by way of establishing a presence on the landscape.

Tamas (2011) describes the dimensions of a capacity building framework:

Values: The beliefs, cultures, attitudes, incentives and motivations of the people in the system.

Structure: The system's structure – its legislation, governance and policy frameworks and power relationships. This is sometimes called the institutional framework: roles and relationships and the formal and informal rules determining the interaction of a system's members.

Skills: The capabilities and competencies of the system's members defined on at least three levels: knowledge, attitudes and behaviours.

Resources: The tools, budgets and other assets available to the system.

Operations: How a system actually works – its formal and informal leadership, decision-making and management mechanisms, strategies, business processes, accountabilities and other aspects of its functions.

Performance: What the system actually accomplishes – the results of its activities.

Applying these capacity dimensions towards watershed management organizations, we gain a clearer and more concise vision of what characteristics the organization requires to 'succeed' in a meaningful way. While definitions of capacity and capacity-building are diverse and many, there is an underlying common theme: a strong focus on both existing and potential abilities, resources, assets and skills (Breen 2013). In the context of complexity, change and uncertainty, each noted as significant challenges to policy implementation in complex social-ecological systems, a particularly important type of capacity not included within Robins' framework is the ability to overcome challenges in an uncertain and ever-changing world, referred to here as adaptive capacity.

2.3.1 Adaptive Capacity

Adaptive capacity is the ability to overcome challenges in an uncertain and ever-changing world. Its usage is most widely present in the discussion of complex issues

related to climate change (e.g. Smith et al. 2003), however is more broadly used in the realm of socio-ecological disturbances (Walker et al 2004). Plummer and Armitage (2010, 6) define adaptive capacity as "the ability of a social-ecological system to be robust to disturbance and capable of responding to change." Folke et al. (2003) (from Plummer and Armitage 2010) identify four key factors that may be reflective of a social-ecological system's robustness to disturbance and inevitable change: 1) learning to live with change; 2) promoting resilience through nurturing diversity; 3) using different knowledge-types in collaborative ways to foster better learning; and 4) enabling the opportunities for self-organization in the pursuit of better and more collaborative environmental management. Plummer and Armitage (2010, 2) explain the usefulness of adaptive capacity in the following way: "Adaptive capacity provides a valuable analytic construct around which managers, scientists, resource users, and policy makers can come together in theoretically engaged but decidedly applied ways to address the challenges of governance."

Below, Figure 2 illustrates how adaptive capacity interplays between various forms of capacity and capitals on the one hand, and broad-based and effective governance on the other. The robustness of these capacity measures is critical at the institutional/organizational level for effective operation. As a concept, this represents a critical enabling factor in attempting to build multi-level governance systems for complex arrangements of, in this case, watershed management.

Adaptive capacity, necessarily, involves human choice. Adaptive capacity represents the social and human elements of environmental management, as it is the

institutions and human networks that critically must adapt to a world of ever-changing political priorities and environmental uncertainties (Walker et al. 2004).

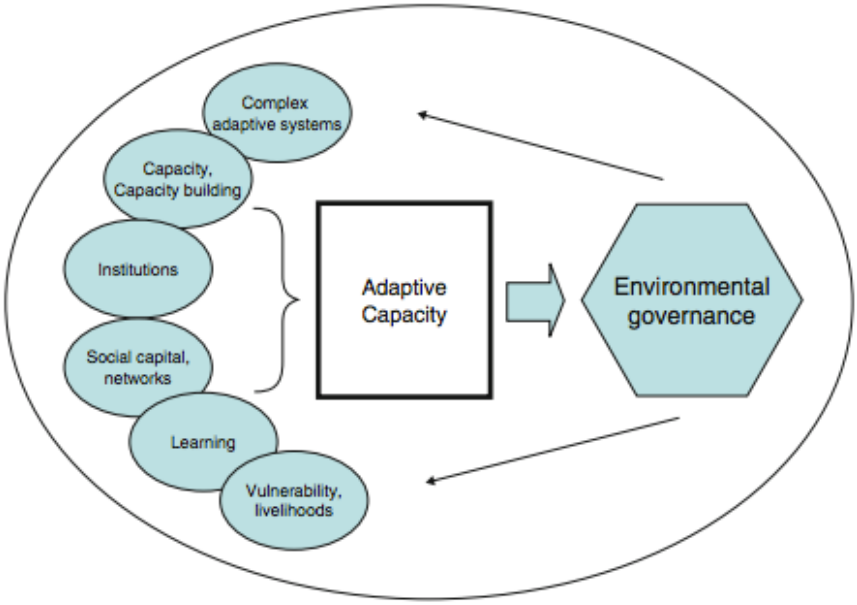

Figure 2. Conceptual framework of adaptive capacity (Plummer and Armitage 2014)

2.5 Overview

This chapter has provided a review of the pertinent literature in fields relating to multi-level, collaborative, and environmental governance, which illustrates efforts to rescale environmental management in recent years. Watershed management of varying forms and commitments has also been reviewed, along with organizational capacity and capacity building. The following chapter will review the history of experimental community watershed management (CWM) in NL, its interconnectedness to the development of a recreational fishing industry, and the political and institutional shortcomings that ultimately led to the program's discontinuation.

Chapter 3. A History of CASEC and Community Watershed Management in Newfoundland and Labrador

3.1 Background

To adequately frame the movement towards a developed recreational fishery and community watershed management (CWM) in NL in the 1990s, we require an understanding of crises of two distinct albeit related natures occurring at the time: the collapse of commercial fisheries resulting in the groundfish and salmon moratoria in 1992, and pre-existing structural employment deficiencies related to an under-diversified, overly resource-dependent economy. Indeed, unemployment and underemployment are historically chronic features of the NL economy and were not strictly the result of the closure of the commercial fisheries. While the moratorium put some 40,000 people out of work more or less over night, this was not the beginning of employment woes in the province. Predating the ultimate collapse of the commercial fisheries, declines had already been experienced in the sector and provincial unemployment had swelled to an annual average rate of 21.3 per cent by 1985, about twice the national average, and remained around that level for the next decade (House 1999).

In response to the employment crisis of this period, the Peckford government of the day established the Royal Commission on Employment and Unemployment, which issued its final report in 1986. Entitled *Building on our Strengths,* the report advocated for an 'integrated strategy' for social and economic development and the creation of new employment opportunities (Government of NL 1985). This meant harmonizing government policies with regional and local initiatives, supporting rural development and small-scale enterprise, and fostering an overall culture of entrepreneurship in the province

(House 1999). The report laid the groundwork for mass and coordinated attempts at diversifying and modernizing the NL economy for the next decade and into the 21st century (House 1999).

The 'integrated approach' articulated by *Building on our Strengths* was the starting point for the creation of the Economic Recovery Commission (ERC), an independent agency and at the time innovative new approach to economic development in the province. In 1989 newly elected premier Clyde Wells, with one of his election promises to establish an ERC within 30 days of assuming office, established his ERC team as an outside-of-government group that was intended to be free of government constraint. The team reported directly to the premier on economic advancements (Pers. Comm., ERC1). Doug House (1999), former chairperson of the ERC explains their vision:

> The Economic Recovery Commission's vision was for the transformation of this economy that was too dependent on government and too dependent on the export of primary resources into a more self-reliant, more diversified economy with a strong private sector. As a shorthand, we referred to this as a transformation from the 'old' to the 'new' economy in Newfoundland and Labrador (19)

One significant tenet of this approach was the commitment to sustainable development through community-based stewardship. Indeed, sound environmental management, sustainability, and community stewardship were emphasized as critical to the province's economic and social development. This meant engaging local and regional stakeholders through strategies such as fostering development associations for community-based and regional development (House 1999).

The ERC also worked to create federal/provincial partnerships in economic development and diversification. The Atlantic Canada Opportunities Agency (ACOA), the federal agency created in 1987 to help build capacity in the Atlantic provinces through enterprise and community development, has been a critical funding agency in achieving local and regional development goals in this province (Vodden and Hall 2013). Other development initiatives in this period such as Strategic Regional Diversification Agreements, Cooperation Agreements, and the Enterprise Newfoundland and Labrador Network were enabled by the work of the ERC. Figure 3 (below) provides a timeline in which major events and milestones took place in the development of recreational fisheries as a rural development policy in NL. The announcement of the Canada/ Newfoundland Cooperation Agreement for Salmonid Conservation/Enhancement (CASEC), a key enabler of CWM in NL, and related events are discussed further below.

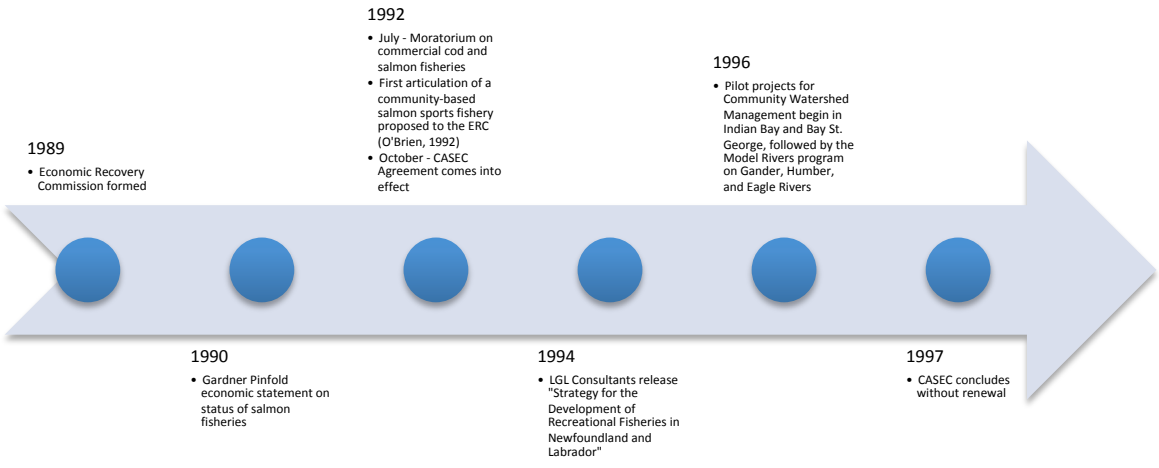

Figure 3. A timeline depicting major events in the recreational fisheries development.

3.1 Overview of Watershed Governance Actors in Newfoundland and Labrador

The various interests involved in watershed governance in NL represent a cross-section of government, non-governmental conservation organizations (from local grassroots, to regional, to multi-national level), industry, recreation, hunting, and angling groups, and Aboriginal peoples. To illustrate what the collection of watershed governance actors looks like in the context of NL, Table 2 details various categories of land use that may take place within the province's watershed, and the agencies and organizations, both governmental and non-governmental, that have some involvement in and/or responsibility for regulating such uses. Inevitably each of these groups has a role to play in watershed management and governance arrangements (adapted from Hearn 2007).

Table 2. Category of Watershed Uses and Related Agencies and Interests

Forestry (commercial and domestic)	Dept. of Natural Resources Aboriginal governments and groups Corner Brook Pulp and Paper Ltd. Municipalities Model Forest Watershed Groups
Transportation (Roads, trails)	Dept. of Transportation and Works Aboriginal governments and groups Industry (e.g. forestry, mining) Crown Lands Watershed groups
Agriculture (animal and crop production)	Dept. of Natural Resources Municipalities Farmers and farming organizations Watershed groups
Recreation and Tourism (including fisheries)	Dept. of Tourism, Culture, and Recreation Fisheries and Oceans Canada (DFO) Dept. of Government Services Aboriginal governments and groups

	Municipalities N&L Snowmobile Federation N&L Outfitters Association ASF/SCNL/SAEN/SPAWN Watershed groups
Mining	Dept. of Natural Resources, Mines, and Energy Aboriginal governments and groups Exploration companies Construction companies Watershed groups
Residential/Cabin development	Municipalities Aboriginal governments and groups Cabin associations Watershed groups

3.3 Overview of Salmonid Governance in Newfoundland and Labrador

The governance and politics regarding the recreational and commercial salmon fisheries in NL are extremely complex and multi-faceted. While other aquatic species are important to fisheries in the province (e.g. trout), the Atlantic salmon holds high priority by virtue of its economic, cultural and symbolic importance. Atlantic salmon and related policies and programs played an important role in the establishment of CWM in NL.

Arguably, the diversity of this set of actors and their relationships in fisheries governance stems from aspects of culture and economy being so powerfully intertwined with the Atlantic salmon and the ecosystems it depends upon: "The Atlantic salmon represents many things to many people. It is certain that over and above its commercial value, the wild salmon enhances our quality of life in many ways. It has been described as the supreme symbol of a healthy ecosystem" (Chase 2011, 1). It is, therefore, necessary to begin any discussion on environmental management in this realm with an understanding of how much is truly at stake. The following section will introduce the

major interests involved in fisheries governance and management in NL, their roles in achieving salmonid conservation and some key related political issues, including catch and release, licensing and privatization.

3.3.1 Federal and provincial governments

As for government mandates related to recreational fisheries, the federal department Fisheries and Oceans Canada (DFO) is responsible for the preservation and enforcement of all laws pertaining to waters within the 29,000 kilometers of coastline in the NL region (DFO 2015). DFO is charged with managing Canada's fisheries in a sustainable manner by enforcing the *Fisheries Act* and other regulations and legislation (Fisheries and Oceans Canada 2015). DFO therefore also manages all anadromous and catadromous marine species (salmon and trout, in this case) in the inland fisheries. This includes all harvesting related enforcement activities. The provincial government, meanwhile, is responsible for licensing and collection of recreational fishing license fees under the current Department of Fisheries and Land Resources, Wildlife Division. The Province also has legislative authority over access by way of licensing, manages all other resources within the watershed such as timber, minerals and drinking water resources, and acts as ancillary to the portion of DFO's mandate to manage inland fisheries (Department of Environment and Conservation 2015).

3.3.2 Aboriginal Governments and Organizations

Aboriginal peoples represent a vital interest in salmonid conservation in NL. Conservation, economic opportunity, and access for food, social and ceremonial purposes to ensure Aboriginal rights and interests are met are all critical factors in salmonid governance. On the island of Newfoundland, First Nations rights and interests were historically represented by the Federation of Newfoundland Indians. Today, the Mi'kmaq First Nations have representation through Miawpukek First Nation (Conne River) and Qalipu First Nation (collectively representing individual bands in Bay St. George, Exploits River, Gander Bay and others). These Mi'kmaq Nations and their members maintain significant cultural and economic ties to the vitality of their salmon bearing rivers (Daniels 2014). Labrador represents a different spectrum of Aboriginal rights and interests, with the Innu, Inuit, and NunatuKavut (Southern Inuit) also maintaining a "food fishery" for salmon that coincides (and sometimes competes) with other recreational and commercial interests.

In 1992 the Aboriginal Fisheries Strategy was launched by DFO in response to the 1990 Sparrow decision by the Supreme Court of Canada that Aboriginal people have a right to fish for food, social and ceremonial purposes. The strategy paved the way for Aboriginal communities to partner with DFO in co-operative management of fisheries resources by way of monitoring, enforcement, and seasonal employment. As part of the Strategy, the Aboriginal Fisheries Guardian program was established for the purpose of enforcement and habitat restoration. This program has empowered Aboriginal communities towards self-determination and governance with regards to their fisheries resources, and most particularly the Atlantic salmon (Daniels 2014).

3.2.3 International Conservation Organizations

Additional interests related to salmonid management and conservation range from grass-roots local level watershed-based committees and associations, to regional organizations of mid-level representation, to provincial, national and international organizations. Internationally, the North Atlantic Salmon Conservation Organization (NASCO) is the largest body of representation to "conserve, restore, enhance and rationally manage Atlantic salmon through international cooperation" (North Atlantic Salmon Conservation Organization 2015). The inter-governmental organization has six attendant parties: Canada, Denmark (including Faroe Islands and Greenland), Norway, the European Union, the Russian Federation and the United States. The organization applies the principle of the *Precautionary Approach,* and has attempted the development of an international treaty, in relation to: management of fisheries; habitat protection and restoration; impacts of aquaculture; stock rebuilding programmes; and use of socio-economic factors in management decisions (North Atlantic Salmon Conservation Organization 2015).

3.2.4 North American Angling and Conservation Organizations

Within North America, the Atlantic Salmon Federation (ASF) is the most powerful conservation lobby, and has consistently pushed for increased conservation efforts on the part of provincial and federal governments (Daniels 2014). In more recent years, this lobby has been guided towards curtailment and in some cases elimination of

all retention fisheries of Atlantic salmon, as is the case in other Atlantic provinces (Atlantic Salmon Federation 2015). Headquartered in St. Andrew's, New Brunswick, the ASF has a network of seven regional councils (New Brunswick, NL, Nova Scotia, Prince Edward Island, Quebec, Maine, and Western New England) that coordinate their conservation lobby efforts related to Atlantic salmon in North America (Daniels 2014). Trout Unlimited Canada is also heavily involved in stream and watershed restoration in Canada for the purpose of promoting healthy freshwater ecosystems (Wildlife Habitat Canada 2016).

3.2.5 Newfoundland and Labrador Angling and Conservation Organizations

The Salmonid Council of Newfoundland and Labrador (SCNL) is an important provincial body that brings together a diverse section of non-government organizations. Founded in 1979, it is an umbrella organization of various interest groups whose primary objectives are dedicated to management, preservation, and enhancement of salmonid resources in the province. Since its inception, the SCNL has been a primary advocate on salmonid issues, with work involved in the following (Hustins 2006):

- The development of Salmon and Trout Management Plans
- The establishment of the Cooperation Agreement for Salmonid Enhancement and Conservation (CASEC)
- The moratorium on the commercial exploitation of wild salmon
- The moratorium on small hydroelectric development
- The growth and development of community stewardship groups
- The conservation and restoration of salmon stocks in the province

- The promotion of catch and release angling

The council has been instrumental in the broad-based facilitation of salmonid conservation in NL. The SCNL operates as the regional council of the Atlantic Salmon Federation (ASF). It brings together a variety of interest groups across the entire spectrum of conservation, industry, and recreational development within the province. As of 2015, the organization's membership included seven affiliate groups (SCNL 2015):

1. Salmonid Association of Eastern Newfoundland (SAEN)
2. Salmon Preservation Association of the Waters of Newfoundland (SPAWN)
3. Environmental Resources Management Association (ERMA)
4. Freshwater-Alexander Bay Ecosystem Corporation (FABEC)
5. Newfoundland and Labrador Outfitters Association
6. Norris Arm and Area Economic Development Committee
7. Northern Peninsula Recreational Fishers Association

While organizations like SPAWN and SAEN, and outfitters interests are more broadly regional in their reach, the remainder of these groups are focused on specific, localized, watershed-based conservation activities. Other local groups in the province involved in SCNL as affiliate groups include IBEC, the Bay St. George Salmon Stewardship Group and the Ragged Harbour Working Group. While these groups are not current official members of the SCNL, all share a common interest of stock and habitat conservation with the SCNL (Hustins 2006). Vodden et al. (2013, 112) identified that there were "at least 13 watershed management groups across the province" as of 2013.

Despite this common interest in salmonid conservation there is a complexity of issues and interests within these groups and the politics are anything but straightforward. Currently, based on previous research and the results of this study, for example, one of the most contentious issues in salmonid conservation and recreational fishery policy is the debate over catch and release versus retention fisheries. Powerful organizations such as the ASF, with the support of provincial groups like SAEN and SPAWN, advocate for catch and release recreational angling and a severely curtailed retention fishery. Other 'populist'-type groups such as the Newfoundland and Labrador Wildlife Federation (NLWF) and its affiliate rod and gun clubs argue that catch and release policy is harmful to fish populations, represents animal cruelty, and dissuades local anglers from river-front presence and acting as the "eyes and the ears" of the rivers in the province (NLWF 2013). As one interviewee bluntly stated, "I don't want to play with my food. I don't want to play the life out of that fish and then throw it back into the water to die" (Pers. Comm., BSG2). The debate over catch and release represents a critical divide within the angling and conservation community (Daniels 2014). Ultimately, this debate is of relevance because of at least one critical reality: Atlantic salmon stocks are performing poorly throughout their bio-region and are in many cases at historic low levels. The salmonid resource in NL is, however, "much healthier" than in the Maritimes (Fisheries and Oceans Canada 2015). A basic understanding of issues and themes of concern in salmon conservation is important in contextualizing the general politics of salmonid and recreational fisheries governance in this province.

Also of critical importance to the politics of salmonid conservation in NL is the issue over 'privatization' and the perception of recreational anglers' rights being at odds

with the interests of the outfitting industry and their affiliates. This controversial issue is discussed further below. First, I provide an overview of the history of the CWM program and related efforts to develop the province's recreational fishery, which helped to fuel the privatizations concerns and debates that ultimately contributed to the program's demise.

3.3 Attempts to Develop the Recreational Fishery

The recreational fishery in NL has existed for centuries, though it began to truly develop in the 1940s and 50s with the emerging appreciation of the pristine and 'world-apart' fishing experience that NL has to offer (ASF 2012). The critical distinction between a recreational (and particularly commercial recreational) fishery and the more traditional food fishery is reflected in the combined rise of fishing as sport, a related emerging conservation rhetoric, and technologies in fly-fishing (Daniels 2014). It was in this time (the 40s and 50s), alongside an emerging conservation ethic and the figure of the sport fisherman,[4] that catch and release became a popular, though controversial technique in sport and conservation (Daniels 2014).

The value of the NL recreational fishery, culturally as well as economically, has long been recognized though never broadly exploited through a developed industry. In 1990 the SCNL funded a highly influential study to provide an economic statement on both the recreational and commercial salmon fisheries in NL to assess the status of the industry under three distinct scenarios: 1) a total closure of the commercial fishery, 2) a

[4] This activity has typically been engendered by a male archetype.

mixed-use, zonal (de-centralized) management, and 3) a stock enhancement program under current exploitation patterns. The study, conducted by Gardner Pinfold Consulting Economists Limited (Gardner Pinfold), concluded that the province has a wealth of untapped potential in a recreational fishing industry, and that it should adopt a mixed-use, zonal, de-centralized management structure (Scenario 2).

Whereas other provinces such as Quebec have had successful recreational fishery management based on zoning and user fees (referred to as Zone d'exploitation controlee, or ZECs), it was argued that the once abundant resource in NL was being treated as having little relative value and thus over exploited while under-priced in the commercial fishery (Gardner Pinfold 1990). It was further stated that the development of a viable recreational fishing industry could ratchet up the so-called 'value chain' in order to more optimally exploit the resource, while encouraging a more broad-based conservation ethic. The report ultimately advocated for a properly managed recreational fishery that could support "a highly desirable type of sustainable development, much of which would occur in the form of small scale enterprises in the rural areas of the province" (Gardner Pinfold 1990, 38).

3.3.1 Catastrophe as catalyst: the introduction of CASEC

In July 1992 the Province of Newfoundland and Labrador confronted an unprecedented crisis in the collapse of its commercial fisheries. While the moratorium on the commercial ground fishery took the headlines, being the more economically significant fishery, a moratorium was also imposed on the commercial salmon fishery, after years of diminishing returns, as depicted in Figure 4 below. Additionally, the federal

and provincial governments began to buy-out the licenses of commercial salmon fishers in the province in order to preserve the diminishing stocks.

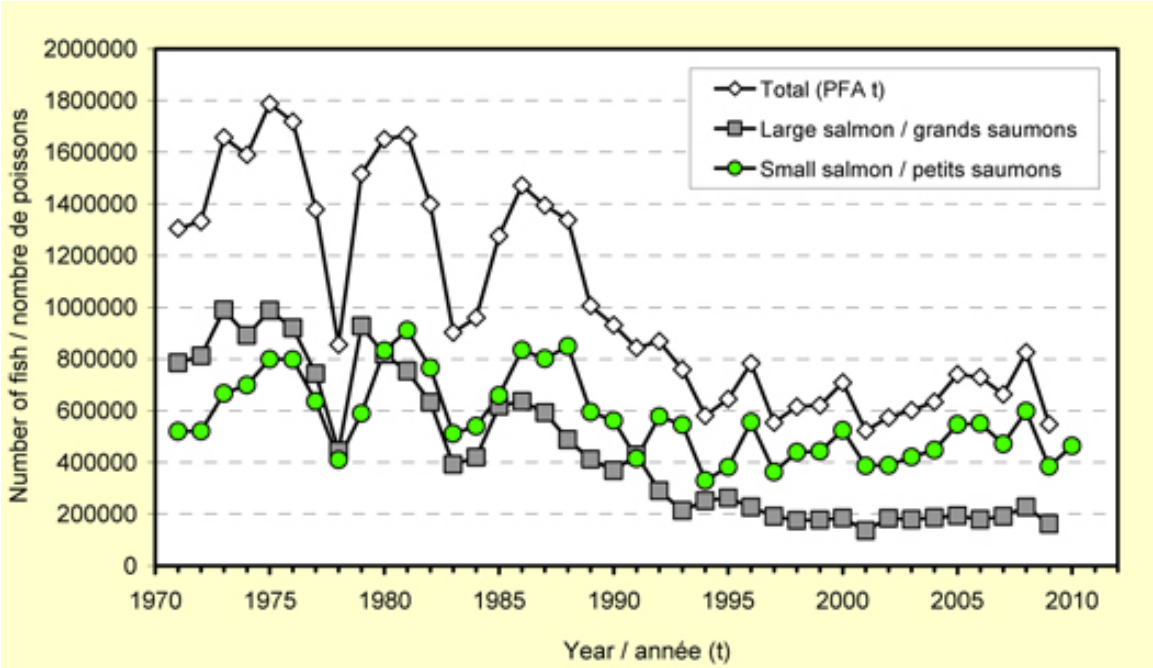

Figure 4. Year-over-year returns of Atlantic salmon on North American rivers (ICES 2011)

Initially pronounced as a five-year moratoria, some 24 years later these commercial fisheries have yet to be fully reinstated. Although the terms of a moratorium may be presented as a sudden and unforeseen event, commercial salmon catches had been declining steadily before the commercial buyout and moratoria in 1992. In the months directly preceding this environmental and economic catastrophe, the Province of NL entered into a cost-share agreement with the Government of Canada (October 1992) to recover and develop Atlantic salmon stocks in the province. Entitled the Canada/ Newfoundland Cooperation Agreement for Salmonid Conservation/Enhancement (CASEC), this was a five-year Cooperation Agreement in which programs would be cost-

shared between federal and provincial governments in a 70/30 split. The agreement had two overarching commitments: 1) to monitor the impact of the license retirement program on salmon returning to NL rivers, which had already been underway, and 2) to develop the potential of a recreational fishery (Rowe 1997). The total value of the agreement was $21.43 million (though subsequently reduced to $18.43 million). This was in addition to the $39.1 million spent on the commercial salmon license retirement.

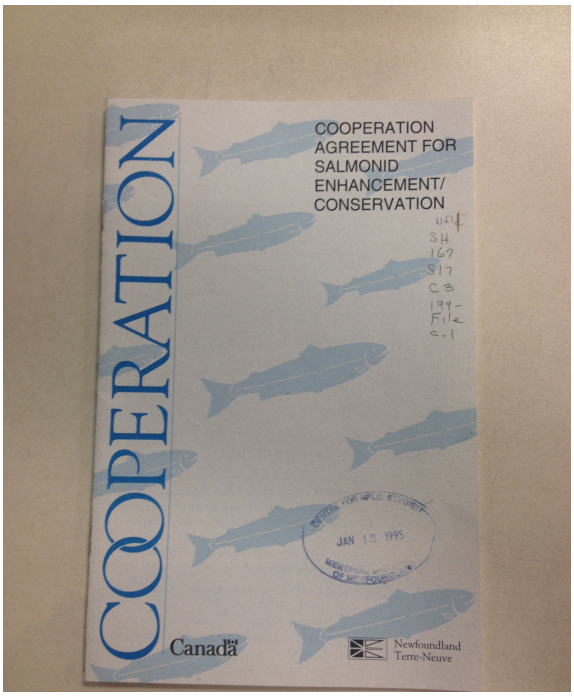

Figure 5. A public informational brochure on CASEC (Photo by S. Holisko)

The primary objective of the CASEC agreement, according to its founding document, was "to maximize the economic benefits to the province from the recreational fishery, by improving and maintaining salmonid stocks, and by improving the overall angling experience" for both resident and non resident anglers (CASEC 1992c, 2). Fundamental to this agreement was the belief that NL once had, and ought to have again,

robust salmon and trout stocks that provided a unique fishing experience without equal around the world. The agreement was comprised of five developmental programs (CASEC 1992c):

1. Stock Assessment Program ($2.5 million)

The initial and most important first step was to create a base-line data set for stock populations in the provinces some 180 scheduled rivers. In order to manage the rivers effectively and to make accurate projections, stock population numbers were needed that did not previously exist. As one interviewee put it, "we needed to know what we were managing." Techniques such as creel surveys and fish (fyke) netting were used to determine spawning stock size, production capacity and stock status. This work provided the basis for all other management work.

2. Salmonid Enhancement Program ($9 million)

The largest block of funding went towards efforts to increase production on selected rivers in the province through stocking and fish passage improvements. Spawning, egg incubation, and habitat expansion were the primary efforts of this program area. Enhancement was used as a catalyst in hopes of bringing stocks back up to historic levels.

3. Habitat Restoration and Improvement Program ($2.9 million)

Environmental degradation and destruction of fish habitat had taken a significant toll on populations by the early 1990s. Work was undertaken to remove obstructions in river networks from both natural and man-made causes including forestry operations, and to

clean up from the effects of illegal dumping and effluent. A large part of this program played into the community engagement aspect of overall programming. Community and volunteer efforts were crucially important to these one-time efforts, as well as in effecting longer term change in attitudes and behaviors.

4. Cooperative Enforcement Program ($2.8 million)

This program coordinated efforts between federal and provincial governments, and communities, regarding habitat protection and illegal fishing. The federal DFO is charged with ultimate enforcement authority, however some of that authority was delegated to the provincial and community levels in the form of projects such as River Watch, an enforcement program that trained locals in basic fisheries enforcement. Community engagement and education were critical aspects of the enforcement program, as well as in efforts to change attitudes and behaviors towards illegal fishing.

5. Strategic Planning and Industry Development Program ($1.03 million)

This program directly supported the management and development of the recreational fishery in the province. Planning initiatives including research, pilot projects, regional conferences and seminars, and external consultations were funded through this program. Industry development included support for a modified guide licensing system, developing potential for the guiding and outfitting sector, and standardizing the guiding and outfitting industry.

Each program had a manager and a specific budget allocation (as denoted above). There was a clear commitment to a broad suite of scientific, economic, social and cultural factors in the overall development of a recreational fishery. This was a concerted and serious commitment towards developing local economic opportunities while effectively and sustainably managing the salmon and trout resource (Pers. Comm., multiple). Community-based watershed organizations were envisioned as playing a role in virtually all aspects of the program.

Fundamentals of the strategic aims of CASEC were derived directly from the dire consequences of the fisheries moratoria: sound environmental stewardship and economic diversification were crucial features of a strategy for a recovered and resilient NL economy, as set out by the ERC. Alistair Allan (1995) describes how the fisheries closures brought about two significant changes in public thinking: "First, the realization that the very survival of rural fishing communities depends on alternative local economic opportunities, and secondly, that without responsible stewardship a seemingly inexhaustible natural resource could be exploited to the brink of extinction" (85). Thus, it was argued, by placing value on the resource in the context of a high value-added industry couched within local economic development opportunity, renewed environmental stewardship and sustainable resource use, a recreational fishery in rural NL could ideally flourish. Importantly, in addition to this proponents argued, a conservation ethic from a grass-roots level could take root.

In order to conserve and enhance stocks, while reversing habitat degradation and providing local economic opportunities, key principles were articulated in the development process (from Allan 1995):

Sustainability

- Conservation and enhancement of stocks must take first priority. This is the foundation to any future endeavors.

Partnership

- The two governments of jurisdictional responsibility (federal and provincial) needed to work together in partnership with community management groups and other key stakeholders.

Stewardship

- The users of the resource, and the watershed more generally, ought to take prime responsibility for the management of the watershed.

Cost Recovery

- The cost of watershed management should be borne by the users of the resource. Those who benefit from the resource ought to bear the cost, in proportion to the benefit received.

Less Government

- Government should reduce its role in management of the resource, while maintaining legislative responsibility and fulfilling its legal mandate.

The articulation of these principles played an important role in framing the discourse on the recreational fishery and community-based resource management, particularly CWM. The agreement initially applied exclusively to the management of Atlantic salmon, though through successful lobbying the Province had Brook trout added to the agreement in recognition of their conservation, scientific, and development potential (Pers. Comm., IBEC6).

3.3.3 Further Developments in the Recreational Fishery

In October 1994 a report was prepared for CASEC to advise on the development of a recreational fishing industry in the province. Entitled *Strategy for the Development of Recreational Fisheries in Newfoundland and Labrador*, this report, referred to as the LGL Report (Buchanan et al. 1994), laid the groundwork for an ambitious strategy of recreational fisheries diversification and development. At its heart, the report recommended three strategic areas of focus for maximizing the economic benefits of recreational fisheries development (Buchanan et al. 1994):

1. **To attract non-resident anglers to the province**. As out of province spending holds the potential to contribute greatly to local income and job creation, this was the key area in which to develop added value.

2. **Increased use of outfitting**. Research at the time suggested that anglers that use outfitting companies spent $1200 to $4000 per week on their fishing experience.

3. **Management of fisheries resources through Community Watershed Management**. The report stated that, "Community Watershed Management goes to the heart of the matter. When the community sees itself as a stakeholder in the resources, this opens up the way to improved resources management… local participation in recreational fisheries management gives a direct way to earn an income through the community management organization" (3).

This influential report initiated the concept CWM. Using the ZEC system in Quebec as a guiding model, the intent of CWM was to maximize local employment through developing a world-class recreational fishery, while ensuring local participation and benefit in economic development. The report went on to suggest that CWM's primary advantages over other models lay in the following areas (Buchanan et al. 1994): 1) its encouragement of respect for resources and the environment, 2) its cost effectiveness, 3) its allowance for government to more effectively target key issues, and, 4) its ability to localize economic benefits.

The report extensively detailed the status of the industry and its potential for expansion. It found that the total economic value of the recreational fishery in 1990 was $106.4 million, and that that value could be increased by 50 percent under proposed plans to develop the industry (Buchanan et al. 1994). Key to this finding was that, on average, the difference in spending amongst three distinct user categories was stark (158):

- Residents pay: $17.50/day
- Canadians pay: $162.22/day
- Non-Canadians pay: $279.07/day

Further, the report suggested it should be possible to increase non-resident spending to $30 million per year (Buchanan et al. 1994, 160). Thus the attraction to the high-end of the market was self-evident. For this to materialize, the development of the outfitting industry and the expanded construction of lodges to accommodate the clientele would be required. This meant, of course, that compromises would be required in terms of access:

the report concluded that "local anglers will have to compromise in their use of quality fishing waters if economic benefits are to be realized" (170). Understandably, this proved to be an extremely controversial topic and eventual lightning rod for those wary of loss of access, privatization, and the perceived conflict between local anglers and wealthy outfitting lodges.

Still, the overall economic benefits of a developed recreational fishery seemed undeniable, and moreover impossible to ignore at a time when the provincial and local economies were reeling from the moratoria. Looking to other provinces such as Quebec and Ontario for inspiration, as well as to countries such as Norway for their outfitting industry, planners and policy-makers often lamented at how Newfoundlanders appeared so resistant to change with respect to status quo operations (Pers. Comm., multiple). The LGL report further found that NL has lagged behind other provinces regarding strategic planning in environmental resource management (Buchanan et al. 1994). That stocks were depleted and in need of new and innovative approaches, and unemployment persistently high in rural areas, exacerbated the befuddlement of proponents with the resistance from some local resident anglers (McNeil 1997).

The LGL report ultimately concluded that "communities should decide whether they want a low value food-fishery or a high value sport fishery; the two types of fishery are probably incompatible in most of the province's waters," continuing that "all stakeholders must give a little in order that the Newfoundland and Labrador society and economy can gain a lot," and that the current situation required action: "if we do not produce positive change, biological, political, and financial constraints will force change, much of which will be negative" (170). Finally, the report recommended in its Action

Plan that four or five pilot projects for CWM be established throughout the province based on need for stock improvements as well as potential for development. It identified Indian Bay, Bay St. George, and the Torrent River as good candidates for this program.

3.4 Community Watershed Management: a new deal?

Two pilot projects were subsequently identified for the development of a CWM model that allowed for enhanced local decision-making in the management of their fishery resources, as well as a broader attempt at community-based resource management and environmental stewardship. The two areas selected for this trial were the Indian Bay watershed area in the Bonavista North region, and the ten rivers draining into Bay St. George on the southwest coast, with Harry's River as the primary focus. They were selected on the basis that community groups already existed in both areas, that both areas had significantly degraded fish populations, and that both were seen to have significant potential to rebound their stocks and to develop a high-value industry in conjunction with community-based resource management principles (Pers. Comm., DFO2).

Local residents in Indian Bay had already been undertaking stewardship work for some time, mainly to do with environmental clean up and initial attempts at stock recovery of the watershed's once famous, trophy-sized brook trout. The community-based group and eventual embodiment of CWM, IBEC, subsequently incorporated in 1995 in order to avail of this pilot project funding opportunity. The organization then wrote up an economic development plan (Wicks 1996), funded through CASEC, to set the new operation in motion.

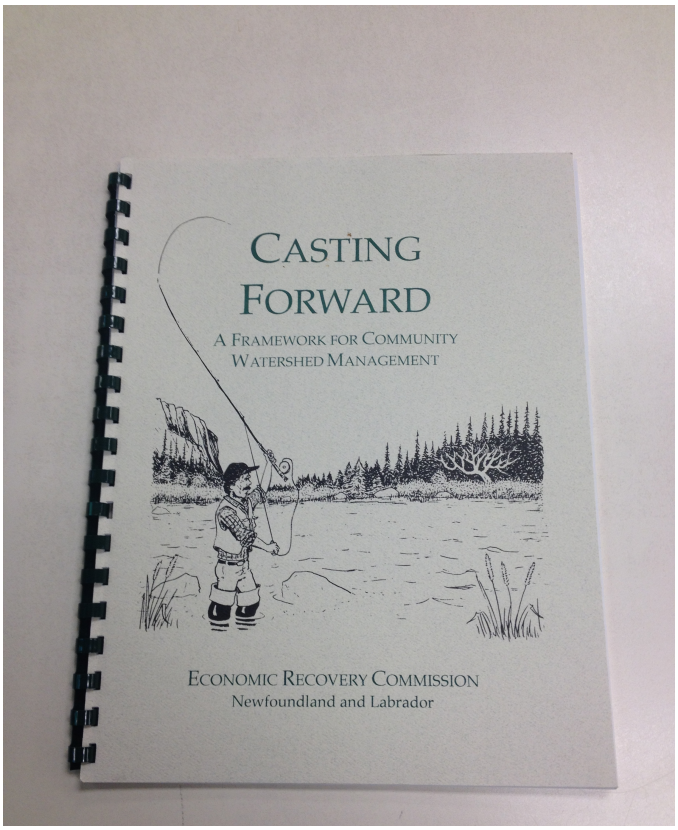

Figure 6. The guiding document for CWM (Photo by S. Holisko)

In Bay St. George, the Bay. St. George South Development Association was also selected as a recipient of CASEC funding under the pilot project initiative. As one interviewee put it, "there wasn't a lot of money involved" (Pers. Comm., BSG1). There was, however, a significant commitment on the part of federal and provincial decision-makers to delegate authority on an experimental basis. According to one DFO official, "[The groups] were selected on the basis of priority identified by our science group… and also with some input from the Province" (Pers. Comm., DFO2). The document that framed the governance arrangements under the pilot projects was called *Casting*

Forward: A Framework for Community Watershed Management (1996), funded by and prepared for the ERC (see Figure 6). As reads the documents preface (1996, 1):

> The agreement presented here is designed to establish a public/private partnership between the Government of Canada, the government of Newfoundland and Labrador and local community organizations for the purpose of community watershed management in Newfoundland and Labrador. It will establish the framework for the operation of two pilot projects in community watershed management in Bay St. George and Indian Bay to promote community stewardship of the natural resources while providing continued public ownership and public access.

The *Casting Forward* document also provided a Memorandum of Understanding (MOU) between the two levels of government and the respective community group. This MOU clearly delineated the roles and responsibilities of each governing party, and delegated a level of decision-making authority to the community group.

The pilot projects in CWM were regarded highly by some politicians, those involved through the ERC, and CASEC program managers. There was a true sense of optimism at the time that this could be a successful program that could provide sustainable, meaningful and substantive local employment opportunities for rural Newfoundlanders (Pers. Comm., multiple). Within the context of the loss of the commercial fisheries, the optimism and hopefulness in this directive is important. To this end, it is worthwhile to quote Doug House, former chairperson of the ERC, in a retrospective on the programs (1999, 184):

> The Economic Recovery Commission's most successful involvement in a specific regional economic development initiative was in recreational fisheries… Our most exciting involvement was at the community level in Indian Bay and Bay St. George, where the regional development associations took the lead at the grass-roots level to gain control over the resource and begin to exploit it commercially as a basis of sustainable economic development.

That House characterized the initiatives as "most successful" was perhaps an overstatement, but it nonetheless highlights the profile of the efforts being taken. Indeed, the projects had the political backing of Premier Wells, former Minister of Fisheries John Crosbie, as well as MHA and future premier Beaton Tulk (House 1999).

3.4.1 The Model Rivers program

Following from the pilot projects in Indian Bay and Bay St. George, CASEC program managers developed a new initiative on three additional river systems in the province that would utilize a similar consensus-based approach to watershed management and fisheries development. This was referred to as the Model Rivers program, which specifically focused on major salmon rivers in the province, and was developed through the Canada/Newfoundland Strategic Regional Diversification Agreement, following CASEC's expiration in 1997 (McNeil 1997).

The goal of this initiative was to devise a comprehensive and holistic plan for the management of, and development within, the watershed system, with a primary focus again on developing a recreational fishery (Pers. Comm., DFO2). The three areas selected were the Gander River led by the Gander River Management Association (GRMA), the

Humber River led by Humber River Watershed Model River Planning Group, and Eagle River/ Sandwich Bay led by the Sandwich Bay Watershed Management Association. These initiatives were added to the general docket of CWM by CASEC program managers, and later, once CASEC had expired, were funded through ACOA (McNeil 1997).

3.4.2 CASEC winds down

Despite the new Model Rivers Program there remained significant challenges to overcome in the face of ever-changing political priorities and uncertain funding arrangements as CASEC came to an end. The election of Premier Brian Tobin in 1996 brought with it the closure of the ERC, one of the principal proponents of rural economic development in general and recreational fisheries and CWM in particular. The year of 1997 then brought an end to CASEC, an agreement that many felt was just starting to gain momentum in terms of achieving its objectives. As one interviewee stated:

> There should have been, and everyone thought automatically, 'CASEC 2,' another CASEC type agreement. The five program elements hit pretty well dead on. Tremendous work was done under it. The review it got was glowing in terms of, in that short period of time, what it had accomplished. 'CASEC 2' seemed automatic, because now we've got a salmon stock that is starting to revive, we've got major runs hitting the Exploits [River], we've got 25,000 coming into the Gander. Now was time to move into the next phase. CASEC expired, a year went by – and now this type of work, when you're talking assessment, you don't want years when there's no data" (Pers. Comm., GRMA 1)

Thus CASEC expired without the working commitment nor the funds to support CWM. Many interviewees expressed disappointment as well as frustration that funding programs ceased to continue, however there was also the realization that core funding was never promised as an indefinite commitment (Pers. Comm., multiple). Therefore either a 'scaling-down' of operation, as many groups experienced, or significant new developments in the way of funding opportunities, were required, post-CASEC. As noted in the quote above, when data gaps set in in terms of missing years of stock assessments, the momentum of these programs can fall off rapidly along with their scientific value.

CASEC was, of course, a very expensive program and the science work took up much of those resources. In a province of currently 186 scheduled rivers spread across some 2.5 million kilometers of continental shelf, with a population of 530,000, the resources for DFO to conduct sustained scientific river monitoring are difficult to obtain (DFO 2016). As explained by one DFO official: "we were pumping a lot of money into those projects. The Gander River was costing several hundred thousand dollars a year to operate the counting fence and to provide advice. So after five or six years you had good information on the stock, and how the stock would perform, then it just wasn't cost effective to keep doing the monitoring, its just too expensive" (Pers. Comm., DFO1).

The primary goal of CASEC was to increase the economic returns from the recreational fisheries. There were five developmental program areas of varying reach across the conservation spectrum, but the underlying reasoning was always based on this fundamental bottom line. In essence, the money spent on CASEC programming was viewed as an investment, and as such would eventually be evaluated in terms of a return on this investment. This was the tone of a final report, in 1997, evaluating the CASEC

program. The report, funded by CASEC and conducted by Andy Rowe Consultants Inc., found that despite good work having been completed, the program was likely too short to bear out more useful conclusions on the status of salmon stocks and the recreational fishery. Regardless, CASEC was discontinued based on a combination of funding constraints, significant work having been completed to prove stock numbers, and inconclusive effectiveness of the program development efforts on the overall industry (Rowe 1997). The difficulty in the rationale not to continue the program based on these factors is that measures of return on investment were unclear, particularly when dealing with long term recovery programs and investments in science and research with environmental conservation aims, even if that conservation is intended to lead to improved economic outcomes.

3.4.3 Privatization, or fear thereof: the pendulum swings

According to the NLWF, there exists only two types of anglers in this province: "those who support salmon development for profit, and those who support salmon angling mostly as a tradition of our people and preserving a traditional freedom" (NLWF 2013, n.p.). Groups such as the NLWF and their affiliates reject advocacy for increased controls on rivers related to access, pricing, or privilege related to fee-for-use of any kind. The nature of this reductive politics has groups like the NLWF, presently and historically, using the term 'privatization' as a catch-all for all new forms of access controls on scheduled rivers.

Salmon angling licensing in NL is a one-tier system in which the purchase of a license enables access to any scheduled river throughout the province, for that particular

season, based on a tag system subject to river-specific classification. In this system, the classification of the river determines the bag limit. There are benefits as well as challenges associated with this system. Benefits include ease of access (picture purchasing a separate license for every river that you choose to fish), administrative simplicity, and the general assurance of consistent controls of access. The principal challenge of this regime is that a general revenue stream does not incentivize the betterment of any particular river. Allowing a river-specific organization to administer its own fees would provide a vital localized revenue stream.

As CASEC came to a close and watershed groups struggled with how to generate revenues to continue their stewardship and development initiatives, for the 1997 angling season, the GRMA was granted a trial approval from the Province for a river-specific license system. The $20 license fee would apply specifically to the Gander River for the season, so that there were for the first time two tiers of river licensing in the province (Daniels 2014). The intent was to create a vital revenue stream that would channel directly back into the coffers of GRMA for the use and betterment of the Gander River, instead of the license fees being collected and channeled back into the province's general revenue.

The experimental river-specific license had its advocates along with its detractors. It was popular amongst local users, those who have likely fished the Gander and only the Gander River their entire lives, as the cost was unchanged and the benefit localized (Pers. Comm., GRMA1). It was, however, extremely unpopular on the Avalon for anglers who tended to travel a distance to their destination, and to fish multiple rivers (Pers. Comm., GRMA1). It was also heavily criticized by the NLWF and by other outdoor rights

advocacy groups that popped up in this period such as the Citizens against Privatization and the Citizens Outdoors Rights Alliance (CORA). The NLWF threatened to bring the issue over the Gander River license to provincial courts before it was eventually and permanently scrapped after one season (Meyers 2000).

Other watershed groups had floated similar ideas of user fees in order to channel those funds back into the resource and to keep their organization funded. There were serious proposals in place on the Humber for river-specific licensing, similar to what had been attempted on the Gander. In Indian Bay, IBEC had lobbied the province to implement a trout license either specific to the Indian Bay watershed, or a general trout license that would be province-wide (there is currently no trout licensing for NL residents). One interviewee recalled that 70 percent of trout anglers polled at the time would support a $10 trout license. He further explained, "we know how many anglers fish in Indian Bay. So based on the usage rate, [the Province would] refund us $10 times 1000 anglers, or whatever the number was. This would then go right back into the protection, conservation, and enhancement of the Indian Bay watershed" (Pers. Comm., IBEC 6). This particular proposal was never put into practice, however. Instead the Gander River licensing experiment became a turning point for CWM in NL, galvanizing the growing public dissent towards the program (see Figure 7 for a depiction of the series of events that followed).

The provincial government was ultimately forced to respond. In 1998, after growing public outcry that was still feeding off of the Gander River licensing experiment, the Province established a Committee of Minister and Members of the House Assembly to hold formal consultations with the public on the future management of the province's

outdoor resources. The consultation process, which sought to include all concerned parties to build consensus on how to preserve public access to the outdoors and outdoor resources, involved 18 public meetings across all regions of the province (Government of NL 1999a).

The report that the committee submitted, *Protecting the Legacy: Report of the Committee on the Use of Outdoor Resources,* is a highly revealing look at the public consultation process that government undertook to adjust its policy commitments regarding the management of crown wilderness lands held in "public trust" (Government of NL 1999a). The report touched on a broad range of topics including outdoor-use management, economic development, and general resource issues, though the primary focus squared centrally on the issue of "privatization" of public goods. The report supported the CWM concept and alleged that concerns over privatization were unfounded, but was nonetheless sensitive to public outcry and ultimately recommended a retreat on the part of the Province, due to the political fall out.

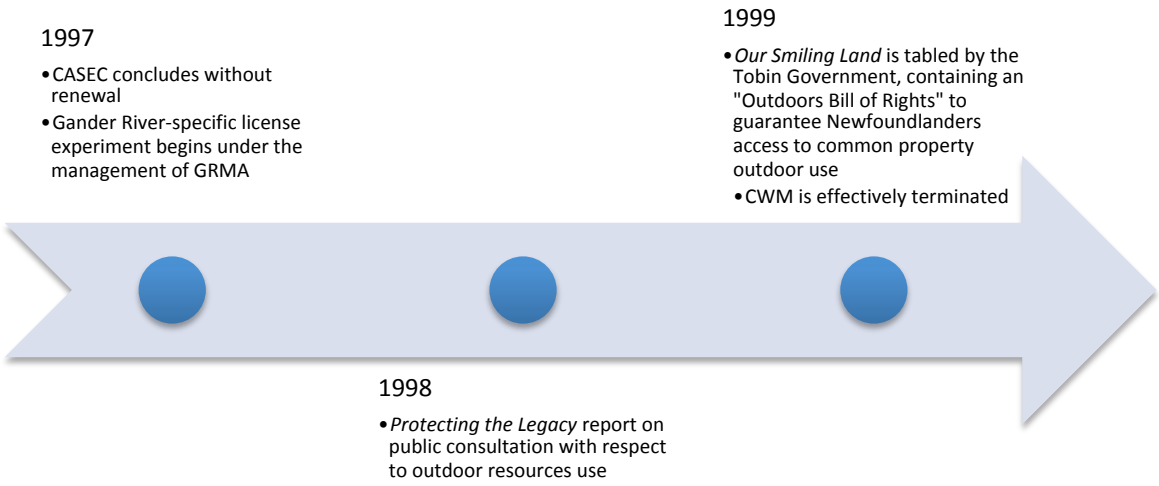

Figure 7. Timeline depiction of major events in the development of CWM after CASEC.

The report *Protecting the Legacy* led directly to the formulation of a very significant policy mandate the following year. In 1999 the Tobin Government articulated its commitment to Newfoundlanders and their access to the outdoors through the policy document entitled *Our Smiling Land: Government's Vision for the Protection and Use of Newfoundland and Labrador's Outdoor Resources* (Government of NL 1999b). The title of the document was borrowed from the province's official anthem "Ode to Newfoundland," and the document itself is rife with literary references. In many ways it is a landmark document espousing the ideals and values of Newfoundlanders and Labradorians with respect to the use of the outdoors. Describing public Crown lands as the foundation of "our culture, tradition, and heritage" and an underpinning of "who we are as a people," the document interestingly described the use of public lands as a "privilege" (as opposed to a right, as many opposed to CWM have described), one which

the government is committed to preserving in the name of "public trust" (Government of NL 1999b, 1).

The document went on to make a sweeping set of government commitments to retain decision-making authority and to adhere to common property principles: the Province would remain a holder of the public trust, effectively disallowing Special Management Areas or localized governance arrangements with respect to outdoors lands and natural resources. This was elaborated through the retention of all licensing responsibilities, the affirmation that resource "privatization" would not be supported, and, crucially, an end to CWM. It proclaimed: "Government will retain decision-making authority, including in respect to licenses and fees, in the area of watershed management. In order to ensure that the interests of all residents of the province are protected, it will not delegate its decision-making power to stakeholder groups and communities" (Government of NL 1999b, 1). This 1999 document illustrates how the CWM program in NL ceased to be provincial policy, just three years after the pilot program had been launched.

3.4.4 "My God-given right to fish these waters"

The talk of fee-for-use, and the one case of experimental licensing on the Gander, caused a flurry of fear and questionable information implying that public resources were in the process of being privatized en masse in the province. Rumors of toll gates being put up on backcountry roads or restricting access to local fishing pools became rampant. To be fair, the license proposal followed on events such as the 1991 ERC report recommending leasing of some salmon fishing areas (pools) to outfitters, contributing to

suspicions and fears of lost access among local anglers (Vodden et al. 2013). Further, many of the key development principles behind CWM described above were well aligned with neoliberal philosophy that favoured market based approaches. From 1995-98 the provincial government de-regulated 21 provincial parks as a cost saving measure and to prospect business opportunities, which undoubtedly stoked the public perception that government was operating on an agenda to privatize sections of public wilderness and natural resources (McGrath 1997; Ballam 2015). This was also a period of broader government divestment of key aspects of the public portfolio, not just in Newfoundland and Labrador, but across Canada, in the neo-liberal crusade to reduce the size of government (Bakker 2007).

When considering distinctions made within common property theory of private ownership versus community-based stewardship models, there is little evidence, however, that CWM and related licensing proposals by watershed organizations were part of this broader provincial agenda to privatize significant portions of public lands nor nullify the 'traditional rights' of Newfoundlanders and their access to the outdoors. There was also no legal basis for privatization of these public watersheds.

The policy and legal commitments of CWM aimed, in fact, to have the opposite effect. CWM was an open commitment that all parties would be explicitly invited to the table to be involved in decision-making for the benefit of the resource and those who use and depend on it, but under the existing legislative framework. Every document that was put forward under the programs of recreational fishery development and CWM contained an express commitment to public buy-in and local decision-making in the management of the resource (House 1999). That government devolved management, then pulled funding,

arguably compelled community groups such as GRMA to shift towards alternative revenue streams and principles that appeared to resemble privatization. Thus the policy espoused one objective, but the failed implementation forced at least the appearance of another.

There emerged a rhetoric, primarily by the NLWF, of "the people" needing to "take back" the resource. An influential article by Owen Meyers in 2000, entitled "Taking Back the Commons," documented the provincial government's attempts to retrench and sell off public lands, followed by abandonment of the notion of government's role as a holder of the "public trust" in the management of its natural resources (Meyers 2000). The charge of the NLWF was that CWM represented moneyed interests in the form of outfitters, developers, and powerful lobby groups such as the ASF, and not the general public, and certainly not the common angler. This charge, however, seems to deny what interviewees describe as core principles of CWM that included inclusiveness and community-involvement with goals of environmental stewardship, together with regional development and diversification. The make-up of these CWM organizations were open, inclusive, and democratic – literally anyone from the region could get involved and voice their concerns if they so chose. This is not to say that CWM was the *only* policy option for management of watersheds and their fisheries resources, however based on CBRM and IWM perspectives presented in Chapter 2 it is the argument of this paper that was a *better* option than the status quo for an evolving commitment towards rescaled approaches resource management, based on extensive government, community and industry research, consultation, and collaboration.

3.4.5 The fortress of government

At the same time that public dissent was growing against CWM, inside the provincial government there was significant, complementary resistance to the notion of power-sharing with community groups invested in managing their resources at the local level. Doug House, in his retrospective on the ERC and the shortcomings of economic renewal in NL, attacks the nature of government bureaucracy generally, and senior level bureaucrats that span political administrations specifically. House highlights the challenges and barriers to such a policy directive in what he reveals as the greatest challenge to de-centralized governance within the highly resistant government bureaucracy (184):

> The recreational fishery project is an excellent example of how successful regional development in the Canadian context requires the cooperation of community-based groups with both orders of government. It is not enough to decentralize decision-making to community groups and expect them to succeed on their own. They need to be given the full support of government agencies that have jurisdiction over their resources. In some cases, as in the watershed management that is essential to successful recreational fisheries development, the community-based groups themselves must be delegated management control over the resource and its development. It is difficult, however, to bring various parties together, particularly given that most government officials are skeptical about the abilities of community groups and protective of their own regulatory authority.

Thus we see the dual challenge of the governance implementation gap: skepticism of the abilities of 'lower orders' of government and non-government organizations on the one hand, and unwillingness to relinquish authority and decision-making on the other. An

interviewee furthered this point, explaining that senior bureaucrats had neither the interest nor intention of supporting the programs, neither financially nor politically: "That had not been their career. This [CWM initiative] was a politician's program in their eyes, that was there to make all of these user groups feel they were part of the process, and that they had equal say and equal right. That was a great theoretical concept, to their mind, but in reality not how the resource needed to be managed" (Pers. Comm., HRW1). This is a powerful indictment of the shortcomings and realities of redefining governance arrangements, and a well documented one. All told, in the face of such resistance from a small but extremely vocal section of the public on the one hand, and internal government forces on the other, CWM and its local management groups seemed attacked from both sides. According to Alistair Allan, former member of the ERC who worked closely with designing the pilot project MOU between IBEC and the provincial and federal governments, amongst several key factors, it was failure to fight through a walled-off bureaucracy that ultimately killed the momentum of the CWM policy directive (from House 1999, 185):

> Crucial opposition concerns involved issues of 'traditional rights,' political resistance and public skepticism over a perceived new 'power group.' The main impediment, however, was none of these obvious problem areas, but an opposition stemming from a determined bureaucratic resistance to change, particularly in the provincial departments. The whole process of planning and negotiation took 6 years from inception to conclusion, and was constantly frustrated by many changes of official departments and even governments. It finally required approval by: 5 teams of lawyers, 2 federal Directors General, 2 premiers, 2 Ministers of DFO, 2 Federal Deputy Ministers, 4 Provincial Ministers and 7 Provincial Departments. The agreement had to be accommodated without

change under the Federal Fisheries Act, the Provincial Wildlife Act, the Tourist Establishment Act and associated Regulations and the Provincial Lands Act.

With frustrations mounting on the part of local managers feeling left without support from higher levels both administratively and financially, a small section of the public decrying privatization and infringement on traditional rights, and politicians and senior managers across government departments unable to deliver, CWM and the attendant recreational fisheries development ultimately reached an impasse.

3.4.6 CWM organizations today

The failure of the Gander license experiment can be understood as a political lightning rod that perhaps 'turned the tide' on momentum that had been gained in CWM development to that point, and dealt a significant blow to the profile of GRMA and groups like it (Pers. Comm., multiple). It was also a critical failure in the pursuit of a viable revenue stream, linked to neo-liberal policies of downloading costs and the resistance that that generated. As explained by one interviewee, the political blowback was stiff and persistent for a time, although it did eventually subside. Indeed, GRMA continued to successfully and substantively fulfill its mandate until eventually folding in 2008, some 10 years later. Interviewees felt, however, that the profile of the organization was never the same.[5]

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[5] An organization's *profile* is an important indicator of the ability to fulfill its mandate. The concept and the importance of organizational profile will be discussed further in the following chapter, but it can be taken to embody the support, both politically, economically, and socially, it may enjoy from government and the community within which it operates (Robins 2007)

The following Table 3 details the current status of the original CWM groups. The table is defined by the geography encompassed, the issue orientation of the group (their primary motivating issue and/or mandate), the governance structure of the group, the amount of personnel employed, and the current status with a summary of years active. As detailed, IBEC is the only group that remains in a capacity today that is consistent with its original mandate in watershed management and increased local decision-making.