The Moral Dimension: Examining Collaborative Water Governance in Quebec Through the Lens of Legitimacy

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Abstract

Institutional solutions can enable society to collectively address many of its most pressing environmental challenges. One institutional solution, collaborative governance, relies on the voluntary involvement of non-state stakeholders. However, the sources of legitimacy for novel institutions such as collaborative governance are unclear, while the means to improve their legitimacy remain poorly understood. The premise of this thesis is that legitimacy, from a sociological perspective, is a fundamental characteristic of institutions that needs to be understood in context, but that can also be shaped through the agency of individuals. The purpose of this thesis is also twofold: It is first to understand collaborative water governance in Quebec, Canada, and second to evaluate what has been done and what further can be done to improve it. First, collaborative water governance in Quebec is assessed through the lens of legitimacy, according to perspectives of local stakeholders, organization staff, and provincial policy-makers, using data gathered through 36 in person semi-structured interviews. Results demonstrate the need to improve fit between collaborative and existing representative institutions, enhance their complementary nature while addressing substantive concerns, and resolve differences in legitimate perspectives between individuals in local watersheds and provincial decision-makers. Second, data from interviews with a total of 13 staff and key individuals (agents) from six watershed organizations in Quebec are used to explore how these agents have shaped collaborative processes to address deficits in legitimacy. Agents' strategies and their rationales were identified, providing insight into how they adapted collaborative water governance to diverse contexts, despite limits to institutional design. However, while agents were instrumental in making collaborative water governance legitimate and effective at the watershed level, structural changes were often beyond their capacities. Informed by the results of these two investigations, recommendations to improve the Quebec Water Policy and its implementation of collaborative water governance are proposed. In this way, a sociological interpretation of legitimacy, paired with an agentic understanding of institutional change, can be used to understand and improve complex environmental governance institutions.

Résumé

Les solutions institutionnelles peuvent permettre à la société de répondre collectivement de bon nombre de ses défis environnementaux plus urgents. Une solution institutionnelle, gouvernance collaborative, dépend de la participation volontaire des intervenants non-étatiques. Cependant, les sources de légitimité pour les nouveaux institutions telles que la gouvernance collaborative restent floues, tandis que la façon dont la légitimité pourrait être amélioré est mal comprise. La prémisse de cette thèse est que la légitimité, à partir d'un interprétation sociologique, est une caractéristique fondamentale des institutions qui doit être compris dans son contexte, mais peut également être mis en forme par l'agence de personnes. L'objectif de cette thèse est double: Il est le premier à comprendre la gouvernance collaborative de l'eau au Québec, Canada, et deuxième pour évaluer ce qui a été fait et ce qui plus peut être fait pour l'améliorer. Tout d'abord, gouvernance collaborative de l'eau au Québec est évaluée par la lentille de la légitimité, conformément aux perspectives des intervenants locaux, des employés de l'organisme, et des décideurs politiques provinciaux, utilisant les données recueillies dans 36 entrevues en personne. Les résultats démontrent la nécessité d'améliorer l'ajustement entre les institutions collaborative et les institutions représentatives existantes, d'améliorer leur nature complémentaire tout en répondant aux préoccupations de fond, et de résoudre les différences de points de vue entre les intervenants dans les bassins versants et les décideurs provinciaux. Deuxièmement, les données d'entrevues avec un total de 13 employés et des individus clés (les agents) de six organismes de bassins versants au Québec sont utilisés pour explorer comment ces agents ont façonné des processus de collaboration pour répondre à des déficits de légitimité. Les stratégies des agents et de leurs justifications ont été identifiées, donnant un aperçu de la façon dont les agents adaptés gouvernance collaborative de l'eau aux différents contextes, en dépit des limites à la conception institutionnelle. Cependant, tandis que les agents ont contribué à faire de gouvernance collaborative de l'eau légitime et efficace au niveau des bassins versants, des changements structurels étaient souvent au-delà de leurs capacités. Informé par les résultats de ces deux enquêtes, des recommandations pour améliorer la Politique nationale de l'eau et sa mise en œuvre de la gouvernance collaborative de l'eau en sont proposés. De cette manière, une interprétation sociologique de légitimité, jumelée avec une compréhension agentique de changement institutionnel, peut être utilisée pour comprendre et améliorer les institutions de gouvernance environnementale complexes.

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Preface and Contribution of Authors

Chapters 3 and 4 of this thesis are being prepared as manuscripts for submission to peer-reviewed journals. Parts of Chapters 3 and 4 were accepted as a conference paper and were presented at the CWRA 2014 Canadian Water Resources Congress, in Hamilton, Ontario on June 2-4, 2014. Chapter 3 has been submitted to the Canadian Water Resources Journal, while Chapter 4 is being prepared for submission to Ecological Economics.

The author of this thesis determined its original topic and conducted the literature review, research design, data collection, analysis and writing. Guidance and input were provided by all co-authors including Dr. Jan Adamowski, Dr. Wietske Medema and Dr. Nicolas Milot. Dr. Adamowski is the supervisor of this thesis. As such, he provided support, guidance and advice regarding many different aspects throughout its development. He also reviewed and edited this thesis and is a co-author of the two manuscripts (Chapters 3 and 4). Dr. Medema, a post-doctoral fellow in the Department of Bioresource Engineering at McGill University, is also a co-author of the two manuscripts. She assisted in preparing the interview protocol, as well as coordinating and conducting the interviews. She also helped review and edit the two manuscripts. Dr. Milot, an Associate Professor at the Institute of Environmental Sciences at the University of Québec in Montreal, is also a co-author of the two manuscripts. He provided important context, support and advice to guide this research, while also reviewing the two manuscripts and providing comments.

List of papers for journal submissions and conferences associated with this thesis:

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Chapter 1: Introduction

1. Environmental Problems and Environmental Governance

Environmental issues present some of the most pressing collective challenges faced by humanity, and water issues are paramount among them (IPCC 2014; Rockstrom et al 2009). Even though the complexity and scale of many environmental issues may be beyond human capacities to fully understand or control, such that many environmental consequences may be irreversible, humanity continues to degrade earth's life support systems at an alarming rate (Funtowicz & Ravetz 1993; Rockstrom et al 2009). Institutions - shared strategies for collective action, - such as those of environmental governance, may enable collective solutions to these environmental problems that would otherwise not be possible (Vatn 2005a). However, there is increasing consensus that many of society's environmental problems, and among them water problems, are rooted in mismanagement and poor governance rather than lack of scientific understanding (Poirier & de Loë 2010). Thus, it is important to evaluate institutions of environmental governance to understand whether they are working and how they might be improved.

2. Collaborative Governance

Recent experiments in environmental governance, such as collaborative governance, increasingly rely on voluntary compliance through moral suasion rather than coercion using incentives or regulation (Lemos & Agrawal 2006). Collaborative governance entails a shift in emphasis away from traditional decision-making by elected representatives towards voluntary and collaborative decision-making. Collaborative governance at the regional and community scale has become widespread under numerous titles including community forestry, environmental planning, and watershed management (Innes & Booher 1999; Ribot 2002; Wondolleck & Yaffee 2000).

Collaborative governance is used to refer to a formal arrangement in which a variety of stakeholders are involved, voluntarily, in decision-making on public issues (Ansell & Gash, 2008; Prager 2010). This definition highlights several important features of collaborative governance (see Table 1): First, collaborative governance is a type of governance; it therefore directly involves non-state stakeholders. The term stakeholder typically refers to anyone who

could possibly affect or be affected by a collective decision (Mitchell et al 1997). Stakeholders include both those representing organizations or groups and individual citizens (Ansell & Gash 2008). Second, stakeholder involvement has some relation to collective decision-making (Ansell & Gash 2008). Power is shared and collaborators hold collective responsibility for their decisions and actions (Selin & Chavez 1995). That is, stakeholders must hold real responsibility for outcomes. Third, collaboration implies two-way communication rather than mere consultation or implementation of predetermined tasks (Ansell & Gash 2008). Fourth, this definition refers to formal, institutionalized collaboration, often initiated or led by government actors in contrast to less formal governance networks or initiatives that may not possess clear organization or structure (Ansell & Gash 2008). Finally, collaborative governance involves decisions that relate to public issues rather than private conflicts or interests (Ansell & Gash 2008; Emerson et al 2012). These features distinguish collaborative governance from more ambiguous forms of governance.

Table 1. Characteristics of collaborative governance and their sources.

Characteristic	Description	References
Individuals Involved	Directly involves non-state stakeholders	Ansell & Gash 2008
Type of Involvement	Stakeholders have some influence on collective decision-making	Ansell & Gash 2008; Lautze et al 2011
	Power is shared and collaborators hold responsibility for decisions and actions	Selin & Chavez 1995
	Two-way communication	Ansell & Gash 2008; Lautze et al 2011
Type of Process	Formal, institutionalized, and often initiated by the state	Ansell & Gash 2008
Decision-Making	Consensus-oriented and deliberative	Ansell & Gash 2008; Prager 2010
Aim	Involves public issues rather than private interests or conflicts	Ansell & Gash 2008; Emerson et al 2012; Selin & Chavez 1995

3. The Legitimacy of Collaborative Governance

Legitimacy is important for environmental governance because, without legitimacy, institutions would not be adopted or perpetuated, resulting in a deficit of collective strategies for achieving common goals (Berger & Luckmann 1966). In the absence of legitimacy, institutions can persist with the aid of coercive means such as sanctions and incentives (Beetham 1991).

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However, coercion is costly and may require the use of force to maintain. With a lack of legitimacy, the degree or quality of cooperation may also be eroded, diminishing the collective ability to achieve objectives (Beetham 1991). Furthermore, effectiveness often depends on the degree of collective cooperation and quality of performance on the part of state and non-state actors (Beetham 1991). Thus, legitimacy, as an essential characteristic of institutions, is a potential means of evaluating institutions such as collaborative governance.

Legitimacy is especially relevant to emerging institutions of environmental governance because they define relationships differently than traditional models of the state and citizens (Stoker 1998). In particular, collaborative governance relies on new norms and values that vary dramatically from those of representative democracy (Wallington et al 2008). The increasing popularity of collaborative governance signifies a shift in responsibility from the state towards citizens, emphasizing citizens' obligations as members of their communities, and society at large (Stoker 1998). Rather than employing regulatory enforcement or incentives to ensure compliance, voluntary collaborative institutions rely on the moral obligations of all actors (Beetham 1991). Since collaborative governance does not rely on traditional government methods such as coercion through use of its authority, the appropriate operating code of collaborative governance remains unclear: "The public…lack a legitimation framework in which to place the emerging system of governance (Stoker 1998, p20)." That is, the sources of legitimacy for collaborative governance are unclear.

Furthermore, it is important to examine the legitimacy of collaborative governance because its reliance on voluntary compliance, rather than coercion by government, is premised on its legitimacy (Connelly 2011). If collaborative governance is perceived to be legitimate by all stakeholders, they will feel morally obliged to take part in decision-making, plan development and implementation (Wallington & Lawrence 2008). Despite the implications that reliance on novel forms of governing such as collaborative governance have, the grounds for the legitimacy of collaborative governance in practice have rarely been questioned or empirically assessed (Baird et al 2014; Connelly 2011; Wallington et al 2008). For these reasons, legitimacy is an appropriate means of assessing institutions of environmental governance, but especially collaborative governance.

4. Institutional Change and Agency

In addition to evaluating institutions of environmental governance, it is also important to understand how they change, and how they might be improved in situ. Institutions constantly change and evolve over time as new strategies are attempted (Poirier & de Loë 2010). This is especially true of institutions for governing the human relationship with the environment. Traditional command and control forms of governing have proven largely ineffective for resolving natural resource and environmental problems (Holling & Meffe 1996). The field of environmental governance has emerged over the last several decades as new institutional arrangements for dealing with environmental and natural resource issues have been attempted (Lemos & Agrawal 2005; Acheson 2006). Recently, voluntary community- and regional-based approaches such as collaborative watershed governance have gained favour (Holling & Meffe 1996; Lemos & Agrawal 2005). Even more recently, hybrid forms of governing that combine features of state, market and community-based approaches have emerged. These hybrid approaches recognize that there exist imperfections in all governance arrangements since the appropriateness of institutional arrangements for governing environmental problems depends on context-specific attributes (Lemos & Agrawal 2005; Andersson & Ostrom 2008).

Since institutions of environmental governance are imperfect and evolving, it is important to understand how they can be adjusted and improved. Adjusting and improving institutions requires both individual action and legitimation (Hybels 1995). The role of agency, specifically how individuals shape institutions and their legitimacy, is critical to understanding how institutions emerge, evolve, and might be improved. Rather than policy and institutional design, agency may be a primary determinant of whether institutions are successful (McLaughlin 1990). Thus, it is important to understand, not only how institutions are legitimate, but also how institutions may be shaped in response to perceptions of their legitimacy.

5. Research Purpose and Questions

Given the preceding arguments, the premise of this thesis is that legitimacy, from a sociological perspective, is a fundamental characteristic of institutions that needs to be understood in context, but can also be shaped through the agency of individuals. Accordingly, the purpose of this thesis is to assess collaborative water governance in Quebec through the lens of legitimacy, but also to understand how agents have shaped the legitimacy of collaborative governance, to provide recommendations to improve the Quebec Water Policy and its implementation in the individual watersheds studied, as well as throughout the rest of Quebec. This purpose is articulated in the form of two questions:

1. How and in what ways is collaborative water governance in Quebec legitimate or not, and according to whom?
2. How have key agents such as organization staff shaped collaborative governance and its legitimacy and how might legitimacy be further improved?

These questions are addressed in two corresponding papers as described below.

6. Organization of this Thesis

This thesis has been written in five chapters. Chapter 1 is the introduction, identifying institutions of collaborative governance as one solution to environmental issues and describing the problem of their legitimacy. The purpose of this thesis, its research questions, and its organization are presented.

Chapter 2 is a literature review exploring the theory of institutions and ways they have been assessed in the context of environmental issues. Legitimacy is discussed, including how it can be used as both a normative and sociological concept to understand and improve institutions. Methods of assessing legitimacy and the role of agency in shaping institutions are reviewed, followed by a description of the case study, collaborative water governance in Quebec.

Chapters 3 and 4 of this thesis are being prepared as manuscripts for submission to peer-reviewed journals and are presented in this format. In Chapter 3, entitled *Society's Normative Yardstick: Assessing the Legitimacy of Collaborative Water Governance in Quebec*, three levels of decision-making most relevant to collaborative governance are identified and the theoretical

framework for legitimacy developed by David Beetham (1991) is used to assess the legitimacy of collaborative water governance in Quebec at these levels. This chapter uses data gathered from 36 semi-structured interviews with local stakeholders, watershed organization staff and policy-makers.

In Chapter 4, entitled *The Role of Agency in Shaping Collaborative Governance and its Legitimacy*, the social-relational and ideational strategies employed by watershed organization staff and other key agents in shaping collaborative water governance and its legitimacy are identified. Similar methods to Chapter 3 are used, but focusing on 13 interviews with staff and key individuals from six watershed organizations.

Chapter 5 is the conclusion of this thesis. It summarizes the findings of this thesis and provides two sets of recommendations for how the legitimacy of collaborative water governance in Quebec can be improved. The first set of recommendations is intended for policy-makers, including the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC). The second set of recommendations is specific to watershed organizations and is most relevant to local and regional stakeholders, as well as watershed organization staff. Original contributions and limitations of this research are noted, and future areas of research are proposed.

Chapter 2: Literature Review

1. Introduction

This chapter is a literature review exploring institutions and their assessment, focusing on how legitimacy can be used as a lens to understand and improve collaborative governance. As such, it provides the theoretical and empirical understanding that informs the methodologies of the two subsequent chapters. First, institutions are defined according to a social constructivist interpretation. Focusing on legitimacy as the moral dimension of compliance to institutions, and a lens for assessing institutions, a theoretical and empirical understanding of how legitimacy has been assessed is presented. Legitimacy has been used as both a normative and sociological concept for understanding and improving institutions. A theoretical framework for understanding legitimacy as a sociological characteristic of political institutions, developed by Beetham (1991), forms the basis for understanding legitimacy in context, the focus of Chapter 3. Three levels of analysis highly relevant to understanding the legitimacy of collaborative governance are identified. The theory of social construction is further explored and developed to understand the role of agency in shaping institutions and their legitimacy. Limits to institutional design implicate the need to understand how institutions change, and how agents can effect institutional change. The role of agency in shaping institutions and their legitimacy is reviewed, and is the focus for Chapter 4. Finally, the case study, collaborative water governance in Quebec, is reviewed.

2. Institutions

Institutions for making collective decisions provide a common, practical solution for addressing societal problems, such as governing collective action related to the environment (Vatn 2005a). Institutions are shared strategies or ways of doing things that provide a framework to order our experience that is common to all; they influence behaviour at all levels of society. These social strategies allow us to understand situations and coordinate behaviour: "institutions create the regularities necessary to make choices comprehensible and workable (Vatn 2005a, p8)." Multiple definitions of institutions exist. We adopt a broad definition of institutions as shared strategies, which include rules, norms and conventions (Vatn 2005a; Crawford & Ostrom 1995).

Institutions can be interpreted from diverse perspectives, ranging from narrow economic views to perspectives that consider individuals situated within their complex social and physical contexts (Poirer & de Loë 2010). This spectrum largely reflects differences in the assumptions of human nature and their relation to society (Vatn 2005b). The individualist perspective employed primarily by neoclassical economists views human behaviour as rational, stable, and interest-maximizing. However, this view has been criticized for its narrow assumptions of individuals as divorced from their larger social and physical environment (Vatn 2005b). Others have likened this limited perspective to considering individuals as disembedded from their larger socio-institutional context (Granovetter 1985). In contrast, the sociological approach of social construction considers individuals as both rational and moral agents, embedded within and shaped by their larger institutional context (Vatn 2005b). From this perspective, individuals both affect and are in turn affected by institutions (Vatn 2005a). Research in ecological economics, as well as common pool resources using the concept of nested institutions, extend the concept of embeddedness to consider individuals and institutions as embedded within their larger socio-political context as well as their biophysical reality (Ostrom et al 2007; Gowdy & O'Hara 1997). This research adopts the social constructivist perspective because it provides a means of understanding institutional change and how institutions shape human interactions with the environment.

2.1. Social Construction and the Moral Dimension

Social construction is a widely accepted theory that enables us to understand institutions, situated within their larger socio-political and biophysical contexts. Social reality encompasses how we collectively understand the world, and the way we interact with and within it (Hybels 1995). Institutions, such as collaborative governance, are elements of social reality that are socially constructed, meaning that they are created and produced by collective human perpetuation, without which they would not exist (Berger & Luckmann 1966). The relationship between institutions and individuals is dialectical: individuals shape institutions even while those same institutions shape the beliefs and behaviours of individuals (Ishihara & Pascual 2012). The institutional world, experienced as an empirically existing human order, provides stability and direction for human conduct (Berger & Luckmann 1966).

As normative guidelines, institutions "demarcate fields of action where different rules are supposed to apply (Paavola & Adger 2005, p360)." As such, institutions indicate what behaviours are (normatively) appropriate, given a certain (cognitive) understanding of a context or situation, although they do not determine behaviour per se (Paavola & Adger 2005). That is, institutions shape and control human activity by providing predefined patterns of conduct (Berger & Luckmann 1966). They provide the primary means of social control; although they may be augmented by coercive means, coercion is necessary only insofar as socialization and moral control are not completely successful (Berger & Luckmann 1966).

As humans are both rational and moral agents, the grounds for compliance can be both practical, as in the case of individuals acting on prudential self-interest, as well as moral, which implies ethical obligation (Beetham 1991). Accordingly, compliance to collective decisions may occur in two ways: through coercion or voluntarily. Individuals may be coerced through institutional mechanisms such as incentives, regulation or the use of force, or may comply voluntarily in accordance with the moral power of institutions and their legitimacy (Beetham 1991). This research focuses on the moral dimension using the lens of legitimacy.

3. Legitimacy

At its most general, legitimacy means that political institutions and their decisions are morally justifiable (Simmons 2001; Peter 2010). Legitimacy is a normative concept that embodies the moral dimension of compliance to decisions, providing the moral grounds or reasons for cooperation and obedience (Beetham 1991; Peter 2010; Parkinson 2003). Legitimacy determines whether political institutions, as well as decisions by those institutions, are acceptable in practice and what obligations citizens governed by those institutions have. That is, legitimate institutions have a moral power over members of society (Berger & Luckmann 1966).

3.1. Normative and Sociological Interpretations of Legitimacy

How and why political institutions and their decisions are legitimate is a fundamental question of political philosophy, but also of practical importance (Beetham 1991). Legitimacy has both a normative and a sociological interpretation, although the two are closely connected (Buchanan & Keohane 2006). In normative political philosophy, legitimacy typically refers to justification of political institutions according to external normative criteria (Quack 2010). As a

prerequisite for making normative judgements, it is important to understand how legitimacy itself is defined and constructed in practice (Connelly et al 2006). Sociological interpretations equate legitimacy to society's normative yardstick for institutions. The task might be described as to determine the degree of congruence between perceptions of what 'is' against what 'ought to be' within a given societal context (Beetham 1991). Accordingly, a sociological approach to understanding legitimacy aims to empirically assess how and whether political institutions are appropriate and accepted within society according to people's perceptions (Quack 2010). To understand the legitimacy of political institutions in practice, they need to be assessed against norms, values and standards that pertain within the society in question rather than independent or external criteria of the right or good (Beetham 1991). Legitimacy in context means that political institutions can be *justified in terms of shared beliefs and norms* held within society (Beetham 1991).

Legitimacy as a sociological concept is essential for the adoption and perpetuation of institutions, and legitimation is constitutive of institutionalization (Hybels 1995). Without legitimacy, institutions will not be supported, resulting in a deficit of collective strategies for achieving common goals (Berger & Luckmann 1966). The legitimacy of new policies and initiatives through moral justification may be a necessity for the success of environmental institutions: "As a good deal of voluntary collaboration is required and change towards sustainable lifestyles cannot be pushed through in a top–down fashion, institutional legitimacy is not only some normative asset but a functional imperative (Steffeck 2009, p314)." It is important to understand legitimacy in context because legitimacy may lag behind policy change. Changing what is legitimate may take longer than creating policies, so as to compromise the support for and effectiveness of novel institutions and collective action (Gearey & Jeffrey 2006).

The following two sections review empirical methods within governance literature that have been used to assess legitimacy according to normative and sociological interpretations of legitimacy respectively, focusing on water governance and on environmental governance more broadly.

3.2. Normative Assessments of Legitimacy

Methods used to assess the legitimacy of governance institutions reflect the dominance of normative interpretations of legitimacy. These methods focus on procedural criteria, including democratic norms, but some methods also include substantive norms.

The legitimacy of governance institutions is most frequently evaluated against claims of good governance based on democratic norms (Bernstein 2011). These norms and principles are diverse and contested, although they have some commonalities. For example, within the environmental governance literature, analyses of global institutions of environmental governance emphasize procedural norms such as transparency, representative and inclusive participation, accountability, and capacity (World Resources Institute 2003; Davis et al 2013).

A significant body of organizational research focuses on procedural aspects of legitimacy as a key question in local governance partnerships (Geddes 2006). One study equated democratic legitimacy with political accountability, voice and deliberation, and assessed governance networks using these criteria (Klijn & Edelenbos 2013). In another study, local partnership governance was found to lack legitimacy related to democratic norms of accountability, and effectiveness (Geddes 2006). A different approach is to use arguments for procedural norms and evaluate institutions against their procedural legitimacy. For example, deliberative democratic arguments advocate for normative criteria of ideal procedures (Baber & Barlett 2005). The ideal procedure is characterized by four requirements: inclusion, equality, reason giving and ideal role taking (Habermas 1994). These criteria are derived from normative philosophical arguments and are based on the claim that legitimacy results from the fair, equal and open nature of the process (Habermas 1994). Communicative, inclusive and genuine reasoning is claimed to lead to legitimate decisions (Taylor 2010). In the water field, one extensive study assessed collaborative watershed partnerships against their procedural democratic merits, and showed that legitimacy was limited by a lack of democratic representativeness and accountability (Leach 2006). These assessments have been useful for emphasizing the importance of procedural ideals.

One widely used interpretation of legitimacy that relies on democratic norms is process-based and divides legitimacy into input-, throughput- and output-legitimacy (Scharpf 1999). This typology refers to the democratic merit of the goals, procedures, and results of an institutional arrangement, but has been used predominantly as a theoretical device rather than for empirical assessment within the environmental governance field (Hogl et al 2012). This method

acknowledges the relationship between legitimacy and effectiveness: legitimacy and effectiveness are closely related, although effectiveness does not always result in legitimacy (Steffek 2009). Further, institutions of environmental governance may be legitimate in the absence of effectiveness, at least to a degree. Steffeck combines this typology with the concept of discursive legitimation to argue for the strength of the connection between legitimacy and effectiveness. However, this argument rests on the claim that decisions are based on rationally debatable reasons, an assumption which others have argued is highly problematic, especially when applied to environmental problems (Lindblom 1959; Vatn 2005b; Parkinson 2003).

A different set of criteria specifically developed in the water governance field distinguishes between procedural and substantive legitimacy (Trachetenberg & Focht 2005). This interpretation recognizes and attempts to account for the substantive component frequently omitted when assessing legitimacy, in addition to procedural norms that are often emphasized (Trachtenberg & Focht 2005). These procedural and substantive criteria are also derived from democratic norms. Two studies that have used this method to assess institutions of watershed governance illustrate that those initiatives have largely achieved procedural goals, but there exist legitimacy deficits related to substantive results (Milot & Lepage 2010; Baird et al 2014). However, this method is limited in that it explicitly excludes tangible results related to real environmental improvements (Tachtenberg & Focht, 2005).

These normative assessments ask whether or not institutions meet certain previously decided criteria, which are often democratic norms. Normative assessments therefore evaluate something fundamentally different than legitimacy in practice; they tell us whether institutions adhere to some abstract notion of the good (Hogl et al 2012). To understand legitimacy in practice, democratic norms should not be the yardstick for measuring governance, but whether institutions adhere to norms widely held in society in general, democratic or otherwise: "The primary normative guideline for governance is not democracy but legitimacy (Wolf 2002, p40)." Assuming certain beliefs and norms are held within society does not tell us whether a political institution is justified and likely to be accepted and perpetuated in practice. To this point, there is growing recognition that norms of democratic representation are impractical and potentially undesirable in some contexts (Quack 2010).

3.3. Sociological Assessments of Legitimacy

Methods for assessing legitimacy according to its sociological interpretation, and empirical studies that use this approach are much less common; hence, research on legitimacy from a sociological perspective remains an understudied field. Legitimacy in context is multidimensional and context-specific, and must balance numerous normative considerations such as equity, efficiency and effectiveness (Adger et al 2003).

One study examined the sources of legitimacy of sustainable urban governance from a sociological perspective, but used a framework of cultural studies rather than specifically for legitimacy (Haikio 2007; Haikio 2012). This research found that, according to local stakeholder perspectives, sources of legitimacy included expertise, representation and fulfilling some notion of the common good (Haikio 2007).

A different method used a discourse analysis approach to assess how the legitimacy of an environmental governance process was established and challenged, finding the existence of multiple legitimacy discourses and an absence of a single overriding discourse (Connelly et al 2006). The strongest norms that grounded legitimacy were those of representative democracy, although its hybrid nature meant that judgement of legitimacy against any single norm was weak.

Another approach used ethical triangulation to look at forestry and fisheries issues in a development context, but did not specifically focus on legitimacy. Ethical triangulation was used to explore perspectives of adaptive co-management according to three normative categories: deontology (following the rules), teleology (the correct ends to pursue), and existentialism (following behaviour that is justified according to one's own beliefs) (Fennell et al 2008). This approach illustrated the need to explore the range and balance of legitimate perspectives within society.

Beetham (1991) developed a multidimensional theoretical framework based on a sociological interpretation of legitimacy. Beetham's dimensions are appropriate for assessing the legitimacy of collaborative governance from a sociological perspective because they avoid assuming the norms that ground legitimacy, democratic or otherwise (Beetham 1991). In addition, they incorporate procedural and substantive norms as elements of content norms within the dimension of justification. Finally, they recognize and incorporate both cognitive and normative dimensions that are important to a social constructivist understanding of institutions through explicit consideration of source norms as well as content norms (Paavola & Adger

2005). While much research on collaborative governance refers to legitimacy, only two studies have used Beetham's dimensions, both assessing novel institutions for governing environmental problems, and have yielded several important findings (Connelly 2011; Wallington et al 2008). We describe Beetham's dimensions in greater detail, and describe empirical findings according to these dimensions.

3.4. Beetham's Dimensions of Legitimacy

Beetham (1991) argues that the degree to which the use of power is legitimate depends on three criteria: its legality, justifiability and consent. Legality means that the use of power follows legal, or commonly held and comprehensible rules of conduct. Second, the rules concerning the use of power are justifiable to those both dominant and subordinate in the power relationship. Finally, legitimacy must be conferred through consent of those subordinate to authoritative decisions. I elaborate each dimension of legitimacy below. This framework provides a robust means to understand and analyze perceptions of the legitimacy of collaborative governance.

Legality refers the to whether power is held and exercised according to established rules, norms and conventions (Beetham 1991). For power relations to be legitimate, they must adhere to a comprehensible institutional structure – ways of doing things that include the norms, conventions and rules of society – to be stable and practical (Parkinson 2003). The rules of legality must be justified by shared beliefs and consented to, and therefore legality is secondary to and contingent upon the other two dimensions of legitimacy (Parkinson 2003).

Legitimacy requires justification in terms of shared beliefs (Beetham 1991). In other words, it requires agreement on who and what really count, as well as how to and who should go about determining collective decisions and actions (Fung 2006). Shared beliefs can be divided into source norms and content norms. Source norms refer to the rightful source of authoritative decisions (Parkinson 2003). Sources include those external to society, such as divine command, natural law and science. These epistemic claims are complimented by sources internal to society, including those of tradition (ie. precedent) and the interests of people as they are, which is currently the dominant source of legitimate decisions in democratic society (Beetham 1991). Content norms refer to the legitimate means of dividing decision-makers from followers as well as their appropriate roles and responsibilities (Beetham 1991). Content norms are composed of

two principles. The principle of differentiation refers to justification for who decides and according to what rationale they are chosen. The differentiation between decision-makers and followers rests upon justification that those who make decisions possess qualities that make them more qualified than those who follow (Beetham 1991). Examples include aristocracy, differentiation based on heredity, and meritocracy based on demonstrated skills or expertise. The principle of common interest refers to the social necessity of power differences (Beetham 1991). Decisions must meet the substantive goals of society and achieve the normatively justifiable and desirable ends (Parkinson 2003).

The third dimension, consent, is "the act of deliberately and suitably communicating one's intentions to undertake obligations toward another (Simmons 2001, p166)." Without the consent of those subordinate to decisions, justification alone cannot secure moral obligation to abide by those decisions. Consent is an expression of voluntary agreement of those subordinate to authoritative decisions to limit their freedoms according to authoritative decisions (Beetham 1991). Specific actions confer legitimacy because they provide public expression that subordinates consent to power relationships and their position within those relationships (Beetham 1991). Their expression of autonomous choice in the absence of coercion secures their obligation to obey. Consent can be granted through explicit means such as voting, expressed implicitly by support through party membership, or through continued participation (Beetham 1991). Lack of consent can be expressed through opposition in the form of protest and complaint or consent can simply be withdrawn when stakeholders cease or fail to participate (Beetham 1991).

Consent can be either expressed (express consent) or tacit (tacit consent). Express consent is given by a 'positive action' that is direct and explicit so that it expresses acceptance or agreement (Simmons 2001). For example, swearing an oath of allegiance is an explicit and public acceptance of a power relationship that demonstrates a subordinate's commitment to abide by authoritative decisions (Beetham 1991). Likewise, public acclamation or expression of approval has historically been used to express consent. Tacit consent lacks direct or explicit positive acts, but nonetheless counts as a clear choice to undertake obligations or limit one's rights under conditions of un-coerced and autonomous choice (Simmons 2001). Taking part in consultations, negotiations or otherwise participating can be considered tacit consent, or assent, as those participating are assumed to have been given the opportunity to voice objections or

withdraw from voluntary participation (Beetham 1991). Conversely, lack of participation, boycotting, or withdrawal from arenas of participation for decision-making can indicate lack of consent and detract from the legitimacy of collaborative governance (for example see Wallington et al 2008). In democratic societies, taking part in elections is considered the required consent to legitimate the government and "secures the obligations of citizens in principle to obey it (Beetham 1991, p92)."

3.5. Empirical Assessments of Legitimacy According to Beetham's Dimensions

Here we describe significant findings of legitimacy in practice for collaborative governance in the water sector, and in the environmental field more generally, according to Beetham's dimensions: legality, justification and consent. As only one study has used Beetham's dimensions explicitly to assess watershed management, and none focusing on collaborative water governance, we present research from the two studies that have used Beetham's dimensions explicitly, as well as results related to collaborative water governance that directly apply to a specific dimension.

Collaborative governance may face problems of *legality* because it relies on voluntary compliance and a blurring of boundaries for roles and responsibilities (Stoker 1998). Beetham recognizes the difficulty of assessing legality in practice, referring to its elusive nature (Beetham 1991). Unclear or evolving rules and procedures mean that it is difficult for actors to follow comprehensible patterns of behaviour and participants in collaborative governance initiatives may adopt roles and responsibilities without clear justification for how they represent the ideas or people they claim to (Booher 2004; Hendriks 2009). For example, Roberg and colleagues (2011) examined the perceptions of both stakeholders and decision-makers concerning stakeholders' roles in collaborative governance through forest stewardship programs in Quebec. They concluded that stakeholder roles are often unclear, resulting in unrealistic intentions, unfulfilled expectations, dissatisfaction, and ultimately in a deficit in legitimacy (Roberg et al 2011). Determining whether actors follow established rules and conventions has proven challenging in other community governance contexts (Connelly 2011). Since institutions may take a long time to become established, and individuals must then learn the accepted operating procedure, legality has been difficult to assess in novel watershed governance arrangements (Leach et al 2002).

Empirical assessments of the legitimacy of collaborative governance focus on *justification*. Institutions of collaborative watershed governance often coexist with, and are initiated by, traditional governments (Baird et al 2014). New norms exist in parallel with those of representative democracy and may conflict (Newman et al 2004). Some have argued that a clearer definition of the role of collaborative institutions of environmental governance within larger democratic institutions is required because their sources of legitimacy are vastly different than democratic norms (O'Neill 2001). For example, understanding institutions of collaborative watershed governance as situated within a larger institutional context of representative democracy means that a central question is whether and how new and existing institutions fit best together (Wallington et al 2008).

In watershed governance contexts researchers have also noted the diverse sources of legitimacy for contemporary forms of governing, and their hybrid nature combining new and existing norms (Wallington et al 2008). In both environmental and watershed contexts, different perspectives may be rooted in 'old' or 'new' norms and worldviews, or incorporate elements from multiple, even contradictory sources (Connelly 2011; Wallington et al 2008). They illustrate diverse and often conflicting perspectives, indicating that legitimacy is complex and multidimensional (Connelly 2011).

Collaboration is costly and difficult to achieve in practice, but also suffers from legitimacy deficits related to its lack of democratic accountability and voluntary nature (Huitema et al 2009). Perceptions that collaborative watershed governance does not achieve substantive ends, including tangible improvements to environmental quality, have been of particular concern for legitimacy (Wallington et al 2008). Significant concerns that expectations for substantive results remain largely unfulfilled are exacerbated by a lack of evaluation for environmental governance outcomes (Hogl et al. 2012; Ansell & Gash 2008). However, studies using Beetham's dimensions have demonstrated that justifiable process and outcomes are both required for legitimacy; what matters most is that collaborative arrangements balance procedural norms against substantive results (Connelly 2011). The balance between procedural and substantive components remains largely unexplored in the environmental and water fields (Baird et al 2014; Connelly 2011).

Consent is arguably the least empirically visible dimension of legitimacy (Connelly 2011). Collaborative governance lacks the traditional means of consent granted to democratically

elected governments through voting, leaving the source of consent unclear (Hogl et al 2012; Stoker 1998). Hence, some argue that for collaborative governance to be legitimate, consent must be actively granted (Bernstein & Cashore 2007). One study in sustainable governance observed that collaborative processes often lack consent, especially when positions are uncontested or remain unfilled, and there is low voter turnout (Connelly 2011). Support was commonly expressed in other ways such as participation and funding (Connelly 2011). It is unclear the extent to which expressed consent is necessary in principle or present in collaborative initiatives (Connelly 2011). Express consent may be less important than the absence of dissent. If all stakeholders subject to decisions give their 'reflective consent' through participation in deliberations, the assumption is that no stakeholder strongly opposes decisions or implementation of plans (Wallington et al 2008). However, whether consent is lost or gained as a result of increasing emphasis on collaborative governance remains an unanswered question.

3.6. Perspectives Relevant for Assessing Legitimacy

Analysis of governance systems needs to account for the fact that actors are situated within the context of larger political systems (Andersson & Ostrom 2008). Collaborative governance is defined and shaped by institutions and actors at many jurisdictional levels, as well as by the interactions and interdependence between those levels (Bakker & Cook 2011; Lemos & Agrawal 2006). Analysis at multiple levels is important because those levels interact to influence decision-making. Multi-level dynamics have only been empirically analyzed to a limited degree and not yet through the lens of legitimacy (Andersson & Ostrom 2008). The perspectives of individuals at three levels of decision-making in collaborative watershed governance are highly relevant for understanding its legitimacy: local stakeholders, organization staff, and government decision-makers.

First, understanding the perspectives of local stakeholders involved in collaborative governance is essential to understanding its legitimacy. In voluntary arrangements, if local stakeholders do not view the process as legitimate, implementation will not be effective because stakeholders will not feel morally obliged to take part in decision-making, plan development or implementation (Papadopoulos 2003). Lack of implementation, support and 'buy-in' may undermine environmental policies and initiatives (Wallington et al 2008; Papadopoulos 2003).

Second, organization staff of collaborative governance initiatives play critical roles in defining and shaping legitimacy at the organizational level. They facilitate and coordinate collaborative processes and may have a large influence, on the ideology and ethos of their organization (Connelly 2011). They also interpret government policy and mandates, translating these goals into collective narratives and actions (Connelly 2011). Organization staff define processes to engage stakeholders at the watershed level and shape their involvement over time (Booher et al 2004, p203). They are instrumental in facilitating and shaping how and whether their organization is perceived as legitimate or not. Ultimately, the role these intermediary coordinators play in shaping legitimacy within and among institutional levels has yet to be fully explored (Prager 2010).

Third, perspectives at the policy level have remained relatively unexplored (Wallington et al 2008). Despite recent changes in modes of governing, government and state apparatus continue to define governance arrangements and need to be considered when analyzing governance (Bell & Park 2006). Governance arrangements are ultimately overseen by governments, which make the rules and regulations according to which governance arrangements operate (Bell & Park 2006). This includes setting agendas and steering outcomes, as well as determining the allocation of resources and authority. The state also fills the critical role of defining the rules for collaborative governance initiatives, shaping policies, laws, regulations, jurisdictions, institutional structure and capacities (Bell & Park 2006). In practice, collaborative governance partnerships are often limited in their ability to directly make decisions (Ribot 2002). Government reluctance to grant collaborative bodies power may indicate that government officials perceive a deficit in their legitimacy because voluntary initiatives often provide no guarantee that plans will be implemented (Furlong & Bakker 2011). It is important that policy level decision-makers also perceive collaborative governance as legitimate and therefore necessary to 'bring government back in' when analyzing collaborative governance and its legitimacy (Bell & Park 2006).
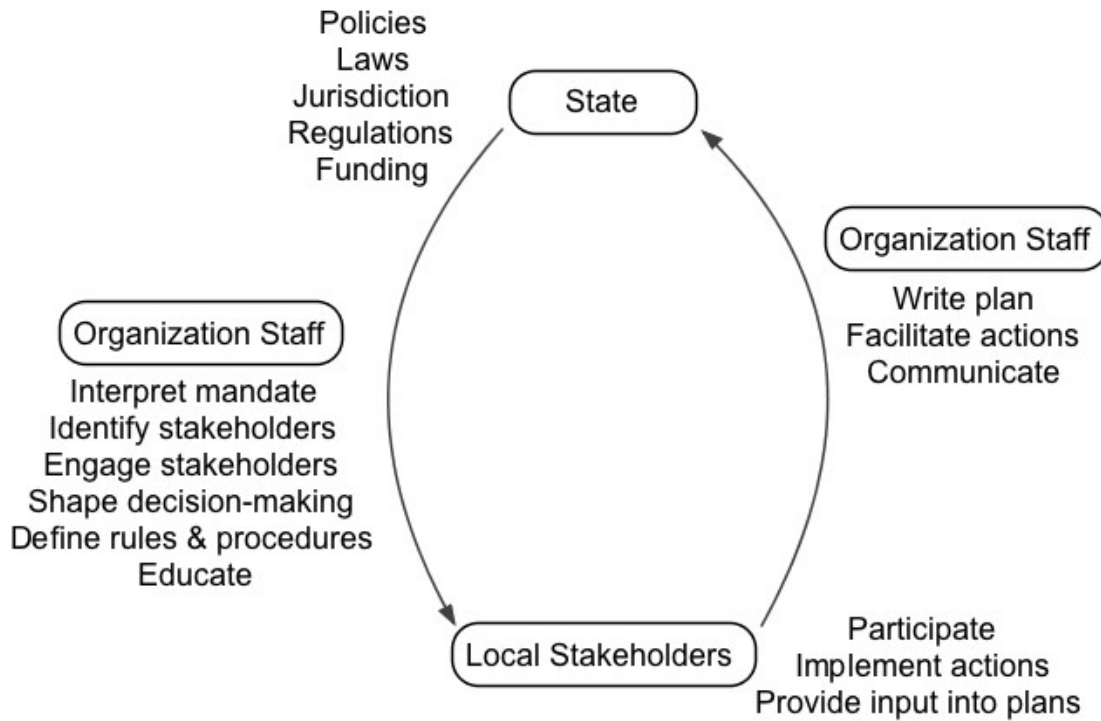
Figure 1. Perspectives relevant for analyzing the legitimacy of collaborative governance.

4. Agency and Institutional Change

This section explores the role of agency in institutional change. The theory of social construction is used as a way of understanding how institutions arise and change, with a focus on the relation between legitimacy and agency.

4.1. Limits to Institutional Design

Andersson & Ostrom argue that the task of institutional analysts is to "sort out the design of such complex systems through careful empirically grounded analyses (2008, p76)." That is, normative principles are derived from empirical analysis of institutions. Accordingly, institutional analysis has focused on how best to design institutions that govern human interactions with nature to address environmental issues (Poirier & de Loë 2010; Vatn 2005a). The most prominent example is Elinor Ostrom's principles for designing common property institutions (Ostrom 1990). However, system design has limits and it is increasingly recognized that there are no institutional panaceas to ensure successful environmental governance (Ostrom et al 2007).

Institutional design is limited by several factors. First, institutional designers may not act instrumentally and may balance multiple competing objectives (Stoker 2004; Lindblom 1959). For example, a common critique of economic approaches is that they assume behaviour follows instrumental rationality. Second, decisions are often based on short-term time horizons, even though they may influence institutions in the long-term (Pierson 2000; Stoker 2004). Third, institutional effects may be unanticipated or emergent. Purposive design is often unable to anticipate unintended effects since institutions and their contexts are complex and constantly evolving (Pierson 2000).

Individuals and institutions interact in complex ways within their physical environments, meaning that purposive design is nearly impossible (Stoker 2004). There exist "inherent imperfections in all human governance arrangements (Andersson & Ostrom 2008, p76)" because the appropriateness of institutional arrangements for governing environmental problems depends on complex, context-specific attributes. In particular, the biophysical conditions of a situation may be equally important for the feasibility of collective action as the design of institutions (Ostrom et al 2007). Attempts to incorporate the required flexibility and adaptability to enable institutions to learn and change in response to an evolving institutional context and biophysical reality reflect recognition of these limitations toinstitutional design (Ostrom 1990). However, the recent popularity of adaptive governance and mechanisms institutional learning belies the challenges of adapting institutions and limitations to learning (Medema et al 2008). This requires that we match appropriate governance strategies and combinations to individual resource problems and contexts (Acheson 2006). Since institutional design is limited, it also implies that institutions must be modified and improved in situ (Pierson 2000).

4.1. Social Construction: A Theory of Institutionalization

Institutionalization is the process by which shared strategies or ways of doing things emerge, change and are perpetuated, and therefore provides a way to understand the relationship between individuals and institutions (Berger & Luckmann 1966). The relationship between institutions and individuals is dialectical; individuals may actively shape institutions even while institutions shape their beliefs and behaviours (Ishihara & Pascual 2012; Vatn 2005a). Berger and Luckmann (1966) describe institutionalization in three distinct stages that bring about social reality (the institutional world): externalization, objectification, and internalization. Through the

process of *externalization*, shared meanings and strategies are collectively produced and habituated. Habituation of these meanings and strategies provides a stable background so that decision-making can proceed with minimal effort or time, freeing resources for deliberation and innovation on issues that require our attention. These institutions are transmitted to others, although their underlying meaning and rationale may be lost. Through *objectification*, the meanings and strategies of the institutional world become an objective and empirically observable reality, external to the individual. That is, institutions are experienced as having a reality of their own. This social reality confronts the individual as an external and coercive fact. When one is exposed to an existing and established institutional world, it is experienced as an objective reality, even if the individual does not understand the purpose or mode of operation of the observed institutions. Finally, through *internalization* humans are shaped by the institutional world as the externalized and objectified reality is incorporated into the consciousness of individuals. The institutional world, experienced as an empirically existing human order provides stability and direction for human conduct.

4.2. Legitimacy and Institutionalization

The process of legitimation is essential to institutionalization and legitimacy is a fundamental characteristic of institutions (Berger & Luckmann 1966; Hybels 1995). If an institution is a persistent aspect of society, legitimacy is the attitude of people towards that aspect without which that aspect would not be sustained (Hybels 1995). Here we interpret Beetham's dimensions of legitimacy - legality, justification, and consent - according to a social constructivist account of institutionalization.

Central to legitimacy is the justification of institutions in terms of beliefs held within society (Beetham 1991). The institutional world requires justification because, in order to carry conviction, it needs to be explained and justified to those who institutions are transmitted to but lack an understanding of the origin and meaning of those institutions (Berger & Luckmann 1966). In addition, legitimation requires some means for shared strategies to be adopted and perpetuated through social interaction: "the extent to which a feature of social organization—such as a practice, category, or mode of exchange—is understood to be evident and accepted as real or true provides an indicator of institutionalization (Colyvas & Jonsson 2011, p40)." Through the lens of social construction, consent refers to acts of collective support, adoption and

continued perpetuation that institutions require to persist (Hybels 1995). Consent is the internalization of externalized and objectified meanings and practices (institutions) and therefore provides an indication of the extent and degree to which institutionalization has occurred. Furthermore, some suggest that stability and longevity are essential characteristics of legitimate institutions (Hybels 1995). This stability component, termed legality by Beetham (1991), refers to whether rules, norms or conventions are followed and the degree of stability or regularity by which an institution may exist and be followed. Importantly, in the process of institutionalization, the stability and regularity of novel institutions may not yet have been achieved, meaning that legality may be less evident.

The process of legitimation spans cognition and norms. Legitimation ultimately involves the *moulding of knowledge* and the *shaping of behaviour* (Hybels 1995). It is the process of explaining or justifying institutions through first cognitive meanings (understanding the way things are) and then norms (the way individuals should act). Although both are required, knowledge precedes values in legitimation (Berger & Luckmann 1966). At base, institutions must be justified according to the beliefs and worldviews held within society. Conceptual machinery, including mythology, theology, philosophy and science, are the systems societies use to create and shape knowledge and meaning that make up the symbolic universes – or worldviews – according to which legitimation occurs (Berger & Luckmann 1966). Subjective reality itself can be transformed, which means that the institutions and worldview that an individual perceives are changed; the individual is re-socialized to a degree (Berger & Luckmann 1966). The most important requirement for transformation is its continual legitimation throughout the process of institutionalization (Berger & Luckmann 1966).

4.3. Agency

The role of individuals is critical to understanding institutions and their legitimation (Crawford & Ostrom 1995). Although institutions are socially produced and their legitimation is a collective process, individuals remain the fundamental elements for the perpetuation or change of beliefs and behaviours. The relationship between institutions and individuals is dialectical (Ishihara & Pascual 2012). Institutions affect individuals by shaping their beliefs, choices and experiences. Often, "beliefs and thoughts are formulated in response to experiences and outcomes over many of which a single agent has little control (Agrawal 2005, p163)."

Individuals in turn shape and change institutions through ongoing interaction and perpetuation (Pierson 2000).

Agency refers to the act of producing or causing a particular result (the dictionary). Individuals are agents that produce both institutional stability and institutional change (Hybels 1995). Individuals reproduce institutions by perpetuating established behaviours such as traditions and habits, but they are also agents of social change. That is, they intentionally or unintentionally introduce novel beliefs and behaviours, or change existing ones (Hybels 1995). The apparent contradiction, that individuals are agents of both stability and change, is resolved by recognizing that individuals act often upon conscious reflection of institutions and their legitimacy (Hybels 1995). Agency through conscious reflection on institutions and their legitimacy means that there are opportunities for working within institutions, but also for altering institutions and their legitimacy. Legitimacy is not an unquestioned state, but may be explicitly considered and debated by individuals (Hybels 1995). In fact, individuals may have considerable knowledge of the structure and purpose of institutions and their legitimacy.

4.3.1. Agency in Institutions of Water and Environmental Governance

Here the role of agency in shaping institutions and their legitimacy is descrived. Human agency is complex, imperfect and difficult to evaluate (Pierson 2000). Processes of institutional change are often trial-and-error and institutions may be modified or enhanced by multiple processes and numerous actors (Hybels 1995). Furthermore, individuals act at multiple levels to manipulate or reinterpret ideas, symbols, practices and resources (Hotimsky et al 2006). While it is individuals that shape and change institutions, there is limited understanding of how agents affect institutions of collective action related to environmental governance (Paavola & Adger 2005). One concept proposed is that of a norm cascade, whereby several 'norm pioneers' spread a set of norms using education and persuasion (Finnemore & Sikkink 1998). A tipping point is reached, resulting in a norm cascade whereby legitimacy plays an important motivating role. Norms are progressively institutionalized, but institutionalization may occur before or after a norm cascade. However, the relationship between institutions and agency lacks coherent explanatory theoretical basis and remains largely an exploratory task (Ishihara & Pascual 2012). It is important to understand how individuals influence institutions and the role individuals play using (1) social-relational strategies and (2) ideational strategies. The extent of current

knowledge on these topics is reviewed, noting research that has been conducted related to environmental governance and water issues in particular.

4.3.2. Social-relational Strategies Used by Agents

The limited research that has been conducted on agency in the water and environmental field has focused on how individuals shape institutions using social-relational strategies, rather than ideational strategies. Research on the roles of individuals in shaping institutions for water governance has identified strategies for shaping social contexts at the policy level (Huitema & Meijerink 2010). However, this study did not specifically look at legitimacy and no such studies exist for basin organizations at the organizational level. Paavola and Adger (2005) argue that "agents not only take behavioural cues from each other, they also read them from the institutional context of their actions (Paavola & Adger 2005, p360)." Individuals therefore may act in response to institutional characteristics such as legitimacy. One study found that agents acted to affect institutional change, "not because it advances the means-end efficiency of the organization but because it enhances the social legitimacy of the organization (Stoker 2004, p9 quoting Hally & Taylor 1996, p949)." Change in environmental institutions often occurs because actors believe that it is morally just or appropriate, according to subjective values and beliefs (Hotimsky et al 2006). Similarly, others suggest that environmental institutions may be adjusted in response to a perceived lack of fit between different perceptions of legitimacy at different levels, including legitimacy deficits rooted in concerns about inclusiveness (Quack 2010). Quack argues that legitimacy building must be understood as a process that occurs alongside rule making and institutionalization, such that the perspectives of legitimacy held by policy-makers and by citizens are both relevant (Quack 2010). However, little research has been conducted on how agents shape institutions to improve their legitimacy.

Research on agency has looked at how contextual factors affect legitimacy. Developing a contextual understanding of legitimacy has been identified as necessary because numerous cultural and social factors affect what is legitimate in any given context (Adger et al 2003). One study in the water field identified different approaches to legitimacy building but emphasized how contextual factors shape what is legitimate (Gearey & Jeffrey 2006). This study demonstrated how processes and decisions were adapted in response to what was perceived as legitimate within several unique contexts (Gearey & Jeffrey 2006). Likewise, research related to

the well-known Rand change agent study found that local contextual factors and individual agency rather than policy guidelines largely determined institutional success (McLaughlin 1990). This research emphasizes the need to determine how policy can best enable agency, and determine which institutions are best suited to local contexts and issues.

4.3.3. Ideational Strategies Used by Agents

Hybels proposes that individuals not only act in response to legitimacy within institutional structures, but also act to alter legitimacy itself by shaping both knowledge and worldviews (Hybels 1995). How and whether agents use ideational strategies has been largely unexplored in the environmental field.

One study used a theoretical framework that looked at both the institutions and the dynamics of choice by actors involved in environmental governance (Berstein & Cashore 2007). The authors argued that political legitimacy develops through processes of learning and interaction in three stages: initiation, building support, and political legitimacy. They showed that argumentation and convincing were most effective when norms were already institutionalized, implying that learning is important in advance of behaviour change (Bernstein & Cashore 2007). These stages are similar to the concept of a norm cascade discussed above, whereby several 'norm pioneers' spread a set of norms using education and persuasion (Finnemore & Sikkink 1998).

Individuals can also affect legitimacy through collective narratives and development of a common understanding. One study used a discourse theoretical approach to examine dominant discourses of legitimacy within the EU Water Framework Directive (Behagel & Turnhout 2011). This research showed how power relationships among individuals shaped the legitimacy of a participatory process through the dominance of a hegemonic discourse so that participatory and deliberative norms that the process ascribed to were not adopted.

Agents may also argue or advocate for beliefs from normative positions, although such actions are not without ethical implications. Agents may act from distinct normative positions to shape legitimacy, using arguments to justify environmental institutions, as well as to shape legitimacy itself (Quack 2010). Agents were found to "use normative arguments…to substantiate their legitimacy claims towards specific audiences and publics and to distinguish their own claims positively from those of competitors (Quack 2010, p13)." Emerging research on change

agents or change champions has looked at the roles of individuals in Canadian water governance, but not specifically at their influence on legitimacy (Straith et al *in press*). This study found that one strategy employed by agents was to explicitly transform values that ground institutions by changing the dominant mental paradigm by continually emphasizing its inconsistencies. This concept alludes to the process of delegitimation that entails an absence of justification and consent (Beetham 1991). However, there exist important ethical considerations related to changing beliefs and worldviews: "Learning is neither value free nor politically neutral (Armitage et al 2008, p96)." These considerations are critical to understanding how legitimacy itself is shaped.

6. Case Study: Collaborative Water Governance in Quebec

In this section, an overview of the collaborative water governance in Quebec is presented, focusing on the Quebec Water Policy and watershed management organizations mandated by the policy. Collaborative water governance in Quebec is an important case study for assessing legitimacy, as well as the role of organization staff in shaping institutions in response to its legitimacy. For the purposes of this research, collaborative governance refers to the set of institutions (norms, rules and conventions) related to watershed organizations, constitute collaborative processes, and define their operating context. This includes the Quebec Water Policy, as well as other relevant institutions (laws, regulations, policies, practices and arrangements) and the actors involved. While not exhaustive, this includes factors identified as highly relevant to understanding water governance in Quebec.

6.1. The Quebec Water Policy and Water Governance in Quebec

Water is an important political issue in Quebec and has been the topic of ongoing debate for the last several decades (Cumyn 2010). The Beauchamp Commission in 1999 incorporated extensive public input to produce a report on water in Quebec (Milot & Lepage 2010). Adopted in 2002, the Quebec Water Policy was intended to address many of the issues identified by the commission and articulated a new approach to governing water that entailed reforming water governance (Quebec 2002). This comprehensive approach to water governance paired regulatory mechanisms with integrated watershed management, emphasizing voluntary implementation

based on collective responsibilities (Quebec 2002). The watershed approach was designed to complement existing government policies, programs and regulations (Baril et al 2006).

6.2. Watershed Management Organizations

The Quebec Water Policy mandated the formation of 33 watershed management organizations in 2002 as a key component to implementing integrated management based on a collaborative approach (Quebec 2002). In 2009, the number of watershed organizations was increased to 40, and their territories were expanded to cover all of southern Quebec (ROBVQ 2009). Watershed organizations are the policy's main mechanism to improve water governance and environmental conditions through the creation and implementation of a water master plan for each watershed (Quebec 2011). Watershed organizations are formal, decentralized, participatory organizations, maintained and supervised by the government, and have no separate legislative provisions (Baril et al. 2006). Watershed organizations' roles are to act as planning and consultation tables, through which stakeholders develop plans, while government representatives are to provide or facilitate provision of scientific and technical support (Baril et al 2006).

The Quebec Water Policy is designed to be non-regulatory and voluntary (Baril et al. 2006). Watershed organizations are directly responsible for implementing integrated management by preparing a water master plan (Baril et al 2006). These plans are to be updated every five years but are not legally binding. Following approval of a plan by a provincial board of ministries, a river contract may be signed between the watershed organization committee and relevant stakeholders in the watershed. River contracts are gentleman's agreements, which are merely voluntary; they cannot be used for legal proceedings or enforcement (Quebec 2011). Although watershed organizations possess no regulatory authority, the governmental stakeholders involved, including the Quebec provincial and local governments, do possess the authority of their legislated mandates (Baril et al 2006). Watershed organizations must rely on public consultation, local and regional expertise, and the mandated responsibilities of municipalities, Regional County Municipalities (RMCs), and government agencies (Baril et al 2006). Stakeholders including the provincial, regional and municipal governments, private companies, non-governmental organizations, and citizens, have the "voluntary opportunity" to act to implement the plan (Baril et al 2006). Ultimately, watershed organizations rely on voluntary collaboration and implementation by governments, as well as non-state stakeholders.

In 2009, Quebec adopted the *Act to affirm the collective nature of water resources and provide for increased water resource protection*, which legally recognizes water as a common resource for the people of Quebec and identifies the Province of Quebec as the guardian of water in the public interest via the Ministry of Environment (Cumyn 2009). Importantly, the act defines the responsibilities of the Government of Quebec as steward of the resource on behalf of its citizens, acknowledging water as a *res communis* (common resource), accessible to and usable by all citizens in the common interests of present and future generations (Quebec 2009; Cumyn 2009). Importantly, Article 15 states that government bodies at different levels must "take into consideration" the water master plans, although they have no legal requirement to implement them (Quebec 2009).

Participation in watershed organizations is intended to equally represent elected officials; economic interests; and civil society, which include the public, environmental and other social organizations (Quebec 2009). The process also incorporates multiple public hearings to encourage participation by and input from all interested members of the community (Milot & Lepage 2010). Furthermore, representatives from various provincial ministries are designated to act as resource persons to provide support and expertise.

Operational funding is provided to each watershed organization by the Quebec government through MDDELCC, with some additional funding through grants or from local governments (Milot & Lepage 2010; Baril et al 2006). This funding provides limited staff and resources for watershed organizations to operate. In addition, the regroupement des organisations de bassin versant du Quebec (ROBVQ) is a private, non-profit organization funded by MDDELCC to support watershed organizations and act as an intermediary between the watershed organizations and the MDDELCC (Brun & Lasserre 2006).

6.3. Empirical Research on Collaborative Water Governance in Quebec

Collaborative water governance in Quebec has evolved rapidly and has not been extensively studied in its current form (Milot & Lepage 2010). Institutional analysis and questions of legitimacy are central to understanding collaborative water governance in Quebec, especially given the evolving nature of water governance, while the role of agency and understanding perspectives of legitimacy are of key concern. The legitimacy of collaborative governance has been examined early in its evolution (Beaulieu 2008; Milot & Lepage 2010). The

legitimacy of Quebec watershed organizations was studied from an organizational perspective in their early stages, finding that multiple rationales confer legitimacy on watershed organizations: the existence of proven and effective examples, logic based on understanding water issues, and norms of participatory management (Beaulieu 2008). Watershed organizations address a diverse range of issues and interests within their territories, and the adaptability of watershed organizations is viewed as one of their strengths (Milot & Lepage 2010). Organization staff employ a range of approaches to engage local stakeholders and carry out their mandate (Milot & Lepage 2010). Five years after its adoption, the Quebec Government evaluated the Quebec Water Policy, articulating the difficulty of assessing implementation because institutional structures take time to develop before actions can be implemented and evaluated; thus, evaluations are needed over longer terms (MDDEFP 2011). A recent report by the Auditor General of Quebec examined water governance in Quebec and its implementation of the Quebec Water Policy (Vérificateur général du Québec 2013). The report expressed concerns that plans developed by watershed organizations are not always taken into account in regional land use plans, and the Ministry of Environment does not know the extent to which watershed plans have been implemented.

Previous research on collaborative water governance in Quebec alluded to the ongoing institutionalization and legitimation of watershed organizations, referring to them as "an organization that initially has to survive (Milot & Lepage 2010, p152)." However, research in Quebec has focused on specific environmental issues such as water quality in Lake Champlain rather than on institutions of collaborative governance (for example see Smeltzer 2012). Watershed organizations and collaborative water governance in Quebec has existed for over 10 years, and watershed organizations completed their plans in 2014 (ROBVQ 2014). These plans have yet to be implemented to a significant degree. The Quebec model provides a highly relevant case to understand the legitimacy of collaborative water governance and how it might be improved.

Connecting Text to Chapter 3

This chapter is a manuscript co-authored by the supervisor of this thesis, Dr. Jan F. Adamowski, as well as Dr. Wietske Medema and Dr. Nicolas Milot. This manuscript is being prepared for submission to the Canadian Water Resources Journal. As such, all literature cited in this chapter is also included in the reference list at the end of this thesis.

In Chapter 3, a sociological interpretation of legitimacy is used to assess collaborative water governance in Quebec. Three levels of decision-making that are highly relevant to understanding the legitimacy of collaborative governance are identified, and in combination with the theoretical framework for legitimacy developed by Beetham (1991), are used to assess the legitimacy of collaborative water governance in Quebec. Data from 36 semi-structured in-person interviews with local stakeholders, organization staff and policy-makers are used. Sources and deficits for legitimacy of collaborative governance in Quebec are identified and discussed.

Chapter 3

**Society's Normative Yardstick: Assessing the Legitimacy of
Collaborative Water Governance in Quebec**

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Abstract

It is increasingly recognized that institutional solutions are required to address many of society's most pressing environmental challenges. One such solution, collaborative governance, entails a shift in emphasis from government control towards voluntary arrangements directly involving non-state stakeholders in decision-making. However, the sources of legitimacy for novel institutions such as collaborative water governance remain unclear. Three levels of decision-making that are highly relevant to understanding legitimacy in these contexts are identified, and are used to assess the legitimacy of collaborative water governance in Quebec, Canada, focusing on watershed organizations within their larger institutional context. Using Beetham's dimensions of legitimacy – legality, justification and consent, – sources of legitimacy are identified through 36 in-person interviews with local stakeholders, watershed organization staff, and provincial policy-makers. Findings illustrate the diverse sources of legitimacy, but also the tensions between those sources, rooted in differences in perspectives within and between levels. Providing several novel insights, this research demonstrates the importance of assessing collaborative governance within and in relation to its larger institutional context. Deficits in legitimacy include a lack of collective responsibility related to implementation, misfit between collaborative governance and existing representative institutions, and lack of consent from the Quebec Government as well as from citizens. However, although collaborative governance may

not be appropriate for all contexts, it fulfills social functions that government cannot and therefore it has high potential to complement previously existing institutions. These results demonstrate how a sociological interpretation of legitimacy can be used to understand the challenges of and ways to improve complex social phenomena such as collaborative governance.

Résumé

Il est largement reconnu que les plus urgents défis environnementaux auxquels font face notre société nécessitent des solutions institutionnelles. Une telle solution, la gouvernance collaborative, comporte une réorientation du contrôle gouvernemental vers des accords volontaires impliquant directement des acteurs non étatiques dans la prise de décision. Cependant, les sources de légitimité d'institutions novatrices comme la gouvernance concertée demeurent mal définies. Trois niveaux de prise de décision particulièrement pertinents à la compréhension de la légitimité ont été identifié, et appliqué ceux-ci à une évaluation de la légitimité de la gouvernance collaborative de l'eau au Québec (Canada), mettant l'accent, sur les organismes de bassin versant, dans leur cadre institutionnel plus large. Mettant en application les dimensions de légitimité énoncées par Beetham – légalité, justification et consentement – les sources de légitimité dans le présent contexte furent identifiées par l'entremise d'entrevues de 36 individus comprenant des acteurs locaux, le personnel d'organismes de bassin versant et des décideurs provinciaux. Les résultats illustrent la diversité des sources de légitimité, ainsi que les tensions existantes entre ces sources, elles-mêmes ancrées dans des différences existantes à même et entre niveaux. Cette étude démontre l'importance d'évaluer la gouvernance concertée elle-même ainsi que dans le cadre de son contexte institutionnel, fournissant ainsi plusieurs nouveaux aperçus. Les lacunes de légitimité comprennent un manque de responsabilité et de mise en œuvre collectif, une inadéquation entre les institutions représentatives et collaboratives, et l'absence du consentement du gouvernement du Québec ainsi que des citoyens. Cependant, bien que la gouvernance collaborative n'est pas approprié à tous les contextes, la collaboration remplit les fonctions sociales que le gouvernement ne peut remplir, et montre donc un fort potentiel pour complémenter les institutions préexistantes. Ces résultats démontrent comment une interprétation sociologique de la légitimité peut être utilisée pour comprendre les défis et le potentiel d'améliorer les phénomènes sociaux complexes tels que la gouvernance collaborative.

1. Introduction

Water issues, which have the potential to significantly affect all societies, embody some of the most pressing and pervasive environmental challenges of the 21st century (IPCC 2013). Institutional solutions are important for addressing environmental problems, and water problems in particular, because there is increasing consensus that these problems are rooted in mismanagement and poor governance rather than lack of scientific understanding (de Loë & Kreutzwiser 2007). Meanwhile, the increasing popularity of environmental governance over the last few decades has largely been in reaction to a loss of faith in government as a custodian of nature (Lemos & Agrawal 2006). State-led approaches have proven inadequate because governments alone do not possess the capacities and resources required to implement the scale and extent of collective action thought necessary to address environmental problems (Holling & Meffe 1996; Stoker 1998). Rather, multiple actors hold power, including those in public, private, and voluntary sectors. These actors are often interdependent, requiring that they agree on common goals and actions to address these issues. Accordingly, governance signifies the changing emphasis in the way society is governed, away from traditional government decision-making, towards inclusion of non-state stakeholders in decision-making (Rhodes 1996; Stoker 1998). Recently, voluntary approaches such as collaborative watershed governance have gained favour (Holling & Meffe 1996; Lemos & Agrawal 2005). Collaborative governance has become widespread at regional and community scales under numerous titles including community forestry, environmental planning, and watershed initiatives (Innes & Booher 1999; Ribot 2002; Wondolleck & Yaffee 2000).

Collaborative governance refers to a formal arrangement where a variety of state and non-state stakeholders are involved, voluntarily, in decision-making on public issues (Ansell & Gash, 2008; Prager 2010). The change in emphasis, from government toward collaborative governance, signifies a shift in responsibility from the state towards citizens, signifying citizens' moral obligations as members of their communities, and society at large (Stoker 1998). Rather than employing regulatory enforcement or incentives to ensure compliance, voluntary arrangements rely on the moral obligations of stakeholders (Beetham 1991). Consequently, collaborative governance requires support and cohesion at all levels of society to work

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effectively because the capacity for collective action is held and distributed among many individuals and organizations.

It is important to examine the legitimacy of collaborative governance because its reliance on voluntary compliance, rather than coercion by government, is premised on its legitimacy (Connelly 2011). How and why political institutions and their decisions are legitimate is a fundamental question of political philosophy, but also of practical importance (Beetham 1991). Ensuring that new environmental institutions are legitimate may be necessary for their success: "As a good deal of voluntary collaboration is required and change towards sustainable lifestyles cannot be pushed through in a top-down fashion, institutional legitimacy is not only some normative asset but a functional imperative (Steffeck 2009, p314)." Accordingly, legitimacy as a sociological concept is essential for the adoption and perpetuation of institutions.

Likewise, legitimation is constitutive of institutionalization (Hybels 1995). Without legitimacy, institutions would not be supported, resulting in a deficit of collective strategies for achieving common goals (Berger & Luckmann 1966). In the absence of legitimacy, political institutions may persist with the aid of coercion in the form of sanctions and incentives (Beetham 1991). However, coercion is costly and requires the use of force to maintain. With a lack of legitimacy, the degree or quality of cooperation may also erode, diminishing the ability to achieve objectives (Beetham 1991). In addition, effectiveness often depends on the degree of cooperation and quality of performance of numerous actors (Beetham 1991). If collaborative governance is perceived to be legitimate by stakeholders, they will feel morally obliged to take part in decision-making, plan development and implementation (Wallington & Lawrence 2008). Thus, legitimacy has tangible as well as intangible social impact on the success of institutions.

Legitimacy is especially important to emerging political institutions such as collaborative governance because they define relationships differently than traditional models of the state and citizens (Stoker 1998). In particular, collaborative governance relies on practices and values that vary dramatically from those of representative democracy (Wallington et al. 2008). Since collaborative governance does not rely on traditional government methods such as coercion through use of authority, the appropriate operating code of governance is unclear: "The public…lack a legitimation framework in which to place the emerging system of governance (Stoker 1998, p20)." Legitimacy in practice may lag behind policy change because changing what is legitimate in context may take longer than creating policies (Gearey & Jeffrey 2006).

Thus, deficits in legitimacy may compromise support for novel institutions, leading to a lack of collective action and effectiveness. Despite the implications that reliance on novel institutions such as collaborative governance have, the grounds for the legitimacy of collaborative governance in practice have rarely been questioned or empirically assessed (Connelly 2011; Wallington et al. 2008).

Collaborative water governance in Quebec provides a suitable context for assessing legitimacy, interpreted sociologically as a characteristic of institutions. Water governance in Canada is experiencing a rapid shift towards incorporating watershed initiatives, often involving local stakeholder participation and collaboration (Hill et al. 2008; Bakker & Cook 2011). However, many of these initiatives lack regulations and bylaws that grant watershed organizations the authority to govern water issues (Furlong & Bakker 2011). Water governance in Quebec is a unique and progressive example of voluntary collaborative governance in Canada (Hill et al. 2008). The Quebec Water Policy articulates a novel approach to governance and mandates the formation of watershed management organizations as a central component to its implementation (Quebec 2002). Its emphasis on the collective responsibility and voluntary action of all citizens to improve water quality and protect the environment relies on its legitimacy and the moral obligation of all actors.

The purpose of this research is to assess the legitimacy of collaborative water governance in Quebec using a sociological interpretation of legitimacy in practice. How is collaborative water governance in Quebec legitimate or not, and according to whom? Answers to these questions will indicate, not only whether collaborative governance is an effective governance solution to address problems related to water, but also whether it has the required support to be viable in the long term and, if not, how might be improved. This paper proceeds as follows: First, legitimacy as a sociological concept is discussed, and Beetham's (1991) dimensions are identified as a framework for assessing legitimacy in practice. Next, three levels of decision-making relevant to the legitimacy of collaborative governance are identified. Using these levels and Beetham's dimensions, the legitimacy of collaborative governance in Quebec is assessed, focusing on watershed organizations within their larger institutional context. Results are presented and their implications for collaborative water governance in Quebec are discussed.

2. Legitimacy: The Moral Dimension

Cooperation among humans is challenging since there are numerous possible ways to do even simple things together. Institutions provide practical solutions for addressing societal problems such as governing related to the environment (Vatn 2005a). Humans are both rational and moral agents, and the grounds for compliance can be both practical, as in the case of individuals acting on prudential self-interest, as well as moral, which entails ethical obligation (Beetham 1991). Accordingly, compliance to collective decisions may occur in two ways: through coercion or voluntarily. Individuals may be coerced through institutional mechanisms such as incentives, regulation, and the use of force, or they may comply voluntarily with the moral power of institutions granted in the form of legitimacy (Beetham 1991). Legitimacy embodies the moral dimension of compliance to decisions, reflecting the moral grounds or reasons for cooperation and obedience (Beetham 1991; Peter 2010). This research focuses on the moral dimension, using the lens of legitimacy.

Legitimacy has both normative and sociological interpretations, although the two are closely connected (Buchanan & Keohane 2006). In normative political philosophy, legitimacy specifically refers to justification of institutions according to external normative criteria (Quack 2010). In addition to making normative judgements, it is important to understand how legitimacy is defined and constructed in practice (Connelly et al. 2006). Interpreted as a socially constructed characteristic of institutions, legitimacy means that institutions are morally justifiable, but also indicates whether institutions are accepted in practice and what obligations citizens governed by those institutions have (Simmons 2001; Peter 2010). As such, legitimate institutions have a moral power over members of society. Accordingly, a sociological approach to understanding legitimacy entails the empirical assessment of how and whether institutions are appropriate and accepted within society according to people's perceptions (Quack 2010). To understand the legitimacy of institutions in practice, those institutions must be assessed against norms, values and standards that pertain within the society in question rather than independent or external criteria of the right or good (Beetham 1991). Hence, legitimacy in context means that institutions can be *justified in terms of shared beliefs and norms* held within society (Beetham 1991). In addition to justification, consent is required to confer moral obligations, although its form and degree are strongly debated (Simmons 2001). The following two sections review empirical methods within governance literature that have been used to assess legitimacy according to

normative and sociological interpretations of legitimacy respectively, focusing on water governance and environmental governance more broadly.

2.1. Normative Assessments of Legitimacy

Assessments of the legitimacy of governance institutions reflect the dominance of normative interpretations of legitimacy. The legitimacy of governance institutions is most frequently evaluated against claims of good governance based on democratic norms (Bernstein 2011). These norms are diverse and contested, although they have some commonalities. For example, within the environmental governance literature, analyses of global institutions of environmental governance emphasize procedural norms such as transparency, representative and inclusive participation, accountability, and capacity (World Resources Institute 2003; Davis et al. 2013). At regional and local scales, a significant body of organizational research focuses on procedural norms of legitimacy in governance partnerships (Geddes 2006). One study equated democratic legitimacy with political accountability, voice and deliberation, assessing governance networks against these criteria, while in a different study, local partnership governance was found to lack legitimacy related to democratic norms of accountability, and effectiveness (Geddes 2006; Klijn & Edelenbos 2013). An extensive study in the water field assessed collaborative partnerships against their procedural democratic merits, showing that legitimacy was limited by a lack of democratic representativeness and accountability (Leach 2006). These assessments have been useful for emphasizing the importance of procedural ideals.

Another widely used interpretation of legitimacy that relies on democratic norms divides legitimacy into input-, throughput- and output-legitimacy (Scharpf 1999). This typology refers to the democratic merit of the goals, procedures, and results of an institutional arrangement respectively, but has been used as a theoretical framework rather than for empirical assessment (Hogl et al. 2012). This method acknowledges the relationship between legitimacy and effectiveness: legitimacy and effectiveness are closely related, although effectiveness does not always result in legitimacy (Steffek 2009). Institutions of environmental governance may be legitimate in the absence of effectiveness, at least to a degree. Steffeck combined this typology with the concept of discursive legitimation to argue for the strength of the connection between legitimacy and effectiveness. However, this argument rests on the claim that decisions are based

on rationally debatable reasons, an assumption others have identified as highly problematic, especially when applied to environmental problems (Lindblom 1959; Vatn 2005b).

A set of criteria developed in the water governance field has been used to assess procedural and substantive legitimacy (Trachetenberg & Focht 2005). This interpretation of legitimacy recognizes and accounts for the substantive component frequently omitted when assessing legitimacy, although it is limited in scope because these procedural and substantive criteria were derived from democratic norms (Trachtenberg & Focht 2005). Two studies that used this method to assess watershed governance illustrated that those initiatives largely achieved procedural goals, but that there existed legitimacy deficits related to substantive results (Milot & Lepage 2010; Baird et al. 2014). However, this method is limited in that it explicitly excludes consideration of tangible results related to real environmental improvements (Tachtenberg & Focht, 2005).

These normative assessments evaluate whether or not institutions meet certain previously decided criteria, such as procedural democratic norms, but some also substantive norms. Normative assessments therefore evaluate something fundamentally different than legitimacy in practice; they tell us whether institutions adhere to some predefined notion of the good (Hogl et al. 2012). However, whether institutions adhere to predefined norms is not the appropriate metric to understand legitimacy in practice because assuming certain beliefs and norms are held within society does not indicate whether a political institution is justified, accepted and perpetuated in practice. Rather, legitimacy in practice reflects whether institutions adhere to norms widely held in society, democratic or otherwise: "The primary normative guideline for governance is not democracy but legitimacy (Wolf 2002, p40)." To this point, there is growing recognition that norms of democratic representation are impractical and potentially undesirable in some contexts (Quack 2010).

2.2. Sociological Assessments of Legitimacy

Methods for assessing legitimacy according to its sociological interpretation are much less common and research on legitimacy from a sociological perspective remains an understudied field. Legitimacy in practice is multidimensional and context-specific, and must balance numerous normative considerations such as equity, efficiency and effectiveness (Adger et al. 2003). One study examined the sources of legitimacy of sustainable urban governance from

a sociological perspective, but used a framework of cultural studies rather than specifically for legitimacy (Haikio 2007; Haikio 2012). According to local stakeholder perspectives, sources of legitimacy included expertise, representation and fulfilling some notion of the common good (Haikio 2007). A different method used discourse analysis to assess how the legitimacy of an environmental governance process was established, finding the existence of multiple legitimacy discourses and an absence of a single overriding discourse (Connelly et al. 2006). The strongest norms that grounded legitimacy were those of representative democracy, although its hybrid nature meant that judgement of legitimacy against any single norm was weak. Another approach used ethical triangulation to look at forestry and fisheries issues in a development context, but did not specifically focus on legitimacy. Ethical triangulation was used to explore perspectives of adaptive co-management according to three normative categories: deontology, teleology, and existentialism (Fennell et al. 2008). This approach illustrated the need to explore the range and balance of legitimate perspectives within society.

Beetham (1991) developed a multidimensional theoretical framework based on a sociological interpretation of legitimacy. Beetham's framework for legitimacy is based on three dimensions: legality, justifiability and consent (see Table 1). *Legality* refers to whether behaviour adheres to established rules, norms and conventions (Beetham 1991). These 'rules of the game' are secondary to the other dimensions because the rules themselves require justification and consent. Institutions also require *justification* in terms of shared beliefs (Beetham 1991). Justification is divided according to source norms and content norms. Source norms refer to the rightful source of authoritative decisions, which can include science, tradition and the interests of people in society (Beetham 1991). Content norms refer to the legitimate way of making decisions and carrying them out, such as the appropriate means of dividing decision-makers from followers as well as their appropriate roles and responsibilities (Beetham 1991). Beetham divides content norms according to two principles. The principle of differentiation refers to justification for who decides and according to what rationale they are chosen. The differentiation between decision-makers and followers rests upon justification that those who make decisions possess qualities that make them more qualified than those who follow (Beetham 1991). More generally, we interpret this to include larger questions of procedure alluded to by content norms. The principle of common interest refers to the social necessity of institutional arrangements (Beetham 1991). Decisions must meet the substantive goals of society and achieve the normatively

justifiable and desirable ends (Parkinson 2003). *Consent* is "the act of deliberately and suitably communicating one's intentions to undertake obligations toward another (Simmons 2001, p166)." Without the consent, justification alone cannot secure moral obligation. Consent can be granted through explicit means such as voting, expressed implicitly by support through party membership, or through continued participation (Beetham 1991). Express consent is given by a 'positive action' that is direct and explicit so that it expresses acceptance or agreement (Simmons 2001). For example, swearing an oath of allegiance, public acclamation or expression of approval are explicit and public acts that demonstrates consent. In contrast, taking part in consultations, negotiations or otherwise participating signify tacit consent (Beetham 1991). Conversely, lack of participation, boycotting, or withdrawal from participation can indicate lack of consent.

Beetham's dimensions are appropriate for assessing the legitimacy of collaborative governance from a sociological perspective because they avoid assuming the norms that ground legitimacy, democratic or otherwise, they incorporate procedural and substantive norms as elements of content norms within the dimension of justification, and they recognize and incorporate both cognitive and normative dimensions that are important to a social constructivist understanding of institutions through explicit consideration of source norms as well as content norms (Beetham 1991; Paavola & Adger 2005).

Table 2. Beetham's dimensions of legitimacy, definitions and examples (Beetham 1991).

Dimension of Legitimacy	Definition	Examples
Legality	Process follows established rules and conventions	Adherence to laws, established procedures, stated goals, or directives
Justification		
• Source norms	Rightful sources or bases for decisions	Science, interests of people, natural law, religion
• Content norms (procedure)	Content and process of decisions	Who decides and how, what decisions are made, roles and responsibilities
• Content norms (common interest)	Substantive and normative goals of society	Justifiable and desirable ends
Consent	Act of communicating one's commitment confers moral obligation	Participation, voting, public approval, recognition or accolade

2.3. Empirical Assessments of Legitimacy According to Beetham's Dimensions

While much research on collaborative governance refers to legitimacy, only two studies have used Beetham's dimensions (Connelly 2011; Wallington et al. 2008). Both assessed novel institutions for governing environmental problems, one of which assessed watershed management in Australia. This section reviews significant findings of legitimacy in practice for collaborative governance in the water sector, and in the environmental field more generally, according to Beetham's dimensions: legality, justification and consent (see Table 1). The two studies that used Beetham's dimensions explicitly, as well as results related to collaborative watershed governance that directly apply to a specific dimension are discussed.

Collaborative governance may face problems of *legality* because it relies on voluntary compliance and a blurring of boundaries for roles and responsibilities (Stoker 1998). Beetham recognizes the difficulty of assessing legality in practice, referring to its elusive nature (Beetham 1991). Unclear or evolving rules and procedures make it difficult for actors to follow comprehensible patterns of behaviour such that participants may adopt roles and responsibilities without clear justification for how they represent the ideas or people they claim to (Booher 2004; Hendriks 2009). For example, Roberge and colleagues (2011) examined the perceptions of both stakeholders and decision-makers concerning stakeholders' roles in collaborative governance through forest stewardship programs in Quebec, concluding that stakeholder roles are often unclear, resulting in unrealistic intentions, unfulfilled expectations, dissatisfaction, and ultimately deficits in legitimacy (Roberge et al. 2011). Determining whether actors follow established rules and conventions has proven challenging in other community governance contexts (Connelly 2011). Since institutions take a long time to become established, and individuals must learn the accepted operating procedure, the legality of watershed governance has been difficult to assess (Leach et al. 2002).

Empirical assessments of the legitimacy of collaborative governance focus on *justification*. Institutions of collaborative watershed governance often coexist with, and are initiated by, traditional governments (Baird et al. 2014). New norms exist in parallel with those of representative democracy and may conflict (Newman et al. 2004). Some have argued that a clearer definition of the role of collaborative institutions within larger democratic institutions is required because their sources of legitimacy are vastly different than democratic norms (O'Neill 2001). Understanding institutions of collaborative watershed governance as situated within a

larger institutional context of representative democracy means that a central question is whether and how new and existing institutions fit best together (Wallington et al. 2008).

In watershed governance contexts researchers have also noted the diverse sources of legitimacy, and their hybrid nature combining new and existing norms (Wallington et al. 2008). In both environmental and watershed contexts, different perspectives may be rooted in 'old' or 'new' norms and worldviews, or incorporate elements from multiple, even contradictory sources (Connelly 2011; Wallington et al. 2008). These diverse and often conflicting perspectives illustrate that legitimacy is complex and multidimensional (Connelly 2011).

Collaboration is costly and difficult to achieve in practice, but also suffers from legitimacy deficits related to its lack of democratic accountability and voluntary nature (Huitema et al. 2009). Perceptions that collaborative watershed governance does not achieve substantive ends, including tangible improvements to environmental quality, have been of particular concern for legitimacy (Wallington et al. 2008). Concerns that expectations for substantive results remain largely unfulfilled are exacerbated by a lack of evaluation of environmental governance outcomes (Hogl et al. 2012; Ansell & Gash 2008). However, studies using Beetham's dimensions have demonstrated that justifiable process and outcomes are both required for legitimacy; what matters most is that collaborative arrangements balance procedural norms against substantive results (Connelly 2011). The balance between procedural and substantive components remains largely unexplored in the environment and water fields (Baird et al. 2014; Connelly 2011).

Consent is perhaps the least empirically visible dimension of legitimacy (Connelly 2011). Collaborative governance lacks the traditional means of consent granted to democratically elected governments through voting, leaving the source of consent unclear (Hogl et al. 2012; Stoker 1998). Hence, some argue that for collaborative governance to be legitimate, consent must be actively granted (Bernstein & Cashore 2007). One study in environmental governance showed that collaborative processes often lack consent, especially when positions are uncontested or remain unfilled, and there is low voter turnout (Connelly 2011). However, support was commonly expressed in other ways such as participation and funding (Connelly 2011). It is unclear the extent to which expressed consent is necessary in principle or present in practice (Connelly 2011). Express consent may be less important than the absence of dissent. If all stakeholders subject to decisions give their reflective consent through participation in deliberations, the assumption is that no stakeholder strongly opposes decisions or

implementation of plans (Wallington et al. 2008). However, whether consent is lost or gained as a result of increasing emphasis on collaborative governance remains an unanswered question.

2.4. Three Levels of Analysis

Collaborative governance is influenced by actors at many levels, as well as by the interactions and interdependence between those levels (Bakker & Cook 2011; Lemos & Agrawal 2006). In the environmental field, multi-level dynamics have only been empirically analyzed to a limited degree and not yet through the lens of legitimacy (Andersson & Ostrom 2008). Collaborative water governance, and any institution, might ideally be legitimate to all citizens at all levels. However, assessing legitimacy according to all citizens presents an overwhelming task. One alternative is to identify those perspectives most pertinent to understanding and improving legitimacy. Since legitimacy is never complete, but is an institutional ideal, identification of its sources and deficits from those perspectives provides a way to pursue enhanced legitimacy (Parkinson 2003). Three levels of decision-making in collaborative water governance for which individuals' perspectives are highly relevant for understanding legitimacy have been identified: local stakeholders, organization staff, and government decision-makers.

First, the perspectives of local stakeholders involved in collaborative governance are essential to understanding its legitimacy. The term stakeholder is used to refer to actors and interest groups that can affect or are affected by the issues of concern (Reed et al. 2009). In voluntary arrangements, if local stakeholders do not view the process as legitimate, implementation will not be effective because stakeholders will not feel morally obliged to take part in decision-making, plan development or implementation (Papadopoulos 2003). Lack of implementation, support and buy-in may undermine environmental policies and initiatives (Wallington et al. 2008).

Second, organization staff play critical roles, defining and shaping legitimacy at the organization level. They facilitate and coordinate collaborative processes and may have a large influence on the ideology and ethos of their organization (Connelly 2011). They may also interpret government policy and mandates, translating goals into collective narratives and actions (Connelly 2011). Furthermore, organization staff define processes to engage stakeholders at the watershed level and shape involvement over time (Booher 2004). They have a large influence on how and whether their organization is perceived as legitimate or not. Ultimately, the

intermediary role organization staff play in shaping legitimacy of collaborative water and environmental governance within and among institutional levels has yet to be fully explored (Prager 2010).

Third, perspectives at the policy level, such as government decision-makers, have remained relatively unexplored in the environmental field (Wallington et al. 2008). Despite recent changes in modes of governing, governments continue to define governance arrangements and need to be considered when analyzing governance (Bell & Park 2006). Governance arrangements are ultimately overseen by governments, which define how they operate, setting agendas and steering outcomes, as well as allocating resources and authority. States also fill the critical role of defining the rules for collaborative initiatives, shaping policies, laws, regulations, jurisdictions, and capacities (Bell & Park 2006). Given this reality, local and regional collaborators are often limited in their ability to directly make decisions (Ribot 2002). In the Canadian water sector, government reluctance to grant collaborative bodies power may indicate that government officials perceive a deficit in their legitimacy because voluntary initiatives often provide no guarantee that plans will be implemented (Furlong & Bakker 2011). Hence, the perspectives of policy-level decision-makers are important to understand collaborative governance and its legitimacy.

2.5. Collaborative Water Governance in Quebec

Adopted in 2002, the Quebec Water Policy articulated a new approach to governing water: the policy proposed regulatory mechanisms in conjunction with integrated watershed management, emphasizing voluntary implementation based on collective responsibilities (Quebec 2002). Hence, the watershed approach was designed to complement existing government policies, programs and regulations (Baril et al. 2006). The Quebec Water Policy mandated the formation of 33 watershed management organizations as a key component to implementing integrated water management based on its collaborative approach (Quebec 2002). In 2009, the number of watershed organizations was increased to 40, and their territories were expanded to cover all of southern Quebec (MDDEFP 2011).

Watershed organizations are the main mechanism in the policy to improve water governance and environmental conditions in Quebec (Quebec 2009). Watershed organizations are formal, decentralized, participatory organizations, maintained and supervised by the

government, and have no separate legal authority (Baril et al. 2006). Watershed organizations' roles are to act as planning and consultation tables, intended to enable stakeholders develop water master plans, while government representatives provide scientific and technical support (Baril et al. 2006). Watershed organizations are intended to equally represent elected officials, economic interests, and civil society, which include the public, environmental and other social organizations (MDDEFP 2012). The process also incorporates multiple public hearings to encourage participation by and input from all members of the community (Milot & Lepage 2010). Furthermore, representatives from various provincial ministries are designated to act as resource persons to provide support and expertise.

Integrated watershed management in Quebec is designed to be non-regulatory and voluntary (Baril et al. 2006). Watershed organizations are directly responsible for implementing integrated management by preparing a water master plan (Baril et al. 2006). Plans are to be updated every five years, but are not legally binding. In 2009, Quebec adopted the *Act to affirm the collective nature of water resources and provide for increased water resource protection*, which specifies that government bodies at different levels must "take into consideration" the water master plans, although they have no legal requirement to implement them (Quebec 2009). Although watershed organizations possess no regulatory authority, the government stakeholders involved, including the Quebec provincial and local governments, do possess the authority and obligations of their mandates (Baril et al. 2006). Therefore, watershed organizations must rely on public consultation, stakeholder participation, local and regional expertise, and the mandated responsibilities of municipalities, regional county municipalities (RMCs), and government agencies (Baril et al. 2006). Stakeholders including the provincial, regional and municipal governments, private companies, non-governmental organizations, and citizens, have the "voluntary opportunity" to act to implement the plan (Baril et al. 2006). Ultimately, watershed organizations rely on voluntary collaboration and implementation by governments and non-state stakeholders.

The legitimacy of institutions remains central to understanding collaborative water governance in Quebec, although it has been given little attention. Collaborative water governance has evolved rapidly in Quebec, and has been increasingly studied (Milot & Lepage 2010). Watershed organizations deal with a diverse range of issues and interests within their territories and organization staff employ diverse approaches to engaging local stakeholders and

carrying out their mandate (Milot & Lepage 2010). The adaptability of watershed organizations is viewed as one of their strengths because it means that they are more appropriate for local contexts and issues. The legitimacy of watershed organizations was studied from an organizational perspective in their initial stages of becoming established (Beaulieu 2008). Findings showed that multiple rationales confer legitimacy on watershed organizations: the existence of proven examples implemented elsewhere, logic based on an understanding of water issues, and participatory norms of inclusion. Others have questioned the effectiveness of watershed organizations and argued that they may lack legitimacy (Milot & Lepage 2010). In addition, previous research on collaborative water governance in Quebec alluded to the ongoing institutionalization and legitimation of watershed organizations, referring to them as "an organization that initially has to survive (Milot & Lepage 2010, p152)."

Despite this need for continued legitimation of institutions, research in Quebec has focused on specific environmental issues such as water quality in Lake Champlain rather than explicitly on institutions of collaborative governance (for example see Smeltzer 2012). An evaluation of the Quebec Water Policy five years after its adoption articulated the difficulty of assessing its effectiveness because institutional structures take time to develop and actions must first be implemented; thus, evaluations are needed over longer terms (MDDEFP 2011). Watershed organizations and collaborative water governance in Quebec have existed for over 10 years, and watershed organizations completed their water master plans in 2014 (ROBVQ 2014). These plans have yet to be implemented to a significant degree (Vérificateur général du Québec 2013). For these reasons, the Quebec model provides a highly relevant example to understand the legitimacy of collaborative water governance and how it might be improved.

3. Methods

A single case study methodology was used to assess the legitimacy of collaborative water governance in Quebec from multiple perspectives at the three levels identified (local stakeholders, watershed organization staff, and government decision-makers). For this research, collaborative governance refers to the set of institutions (norms, rules and conventions) that define watershed organizations and their operating context. As a sampling approach, the local stakeholders and organization staff that were interviewed were selected from three different watershed organizations. These organizations, which were chosen to include a range of issues,

geographic sizes, and durations of existence, within practical limitations were the Agence de bassin versant des 7 (ABV des 7) in the Gatineau watershed, Société de conservation et d'aménagement du bassin de la rivière Chateauguay (SCABRIC) in the Chateauguay watershed, and Conseil des bassins versants des Mille-Îles (COBAMIL) in the rivière Mille-Îles region (Leach 2006; Milot & Lepage 2010; Schmidt & Morrison 2012).

Multiple sources of evidence, including document review, participant observation and 36 in person semi-structured interviews, were used (Yin 2003). A total of 41 interviewees participated, as several interviews were conducted with multiple participants (see Table 2). Interviews were conducted with 8-10 key stakeholders in each of the three watersheds. These interviewees were identified by organization staff and recruited by researchers based on their current or past participation as stakeholders in watershed organizations. In addition, a snowball sampling method was used to identify additional stakeholders with relevant perspectives. Snowball sampling involves identifying subsequent individuals from previous interviews, beginning by identifying initial interviewees using selection criteria such as participation in watershed organizations (Reed et al. 2009). The interviews continue until the data becomes saturated, meaning that no new information is revealed from subsequent interviews, no new interviewees are identified, or practical constraints such as time or resources are reached (Small 2009). One potential weakness is that sampling may be biased by the social networks of the first person in the snowball sample. This was not a concern for this study since initial contact was made with the coordinators of watershed organizations because those directly involved in the process are expected to have contact with all relevant parties. Furthermore, snowball sampling almost always increases the number of respondents since people are more likely to respond to a researcher when the latter has been in contact with someone they are familiar (Small 2009). Interviews were also conducted with a total of eight staff members from the selected watershed organizations (see Table 2). Finally, six decisions-makers and administrators at the Quebec level were also identified through snowball sampling methods and interviewed.

Interviews explored themes of collaborative governance identified in the literature as relevant to legitimacy according to Beetham's dimensions. Themes included the institutional structure, mandate, roles and responsibilities, appropriate function, participation, and organization history (Ansell & Gash 2008; Connelly 2011; Leach et al. 2006; Wallington et al. 2008). Interviews were tape-recorded, transcribed and responses were coded for themes

previously identified as well as emergent themes. Responses were identified and analyzed using directed content analysis, the preferred method when sufficient theoretical frameworks are available (Hseih & Shannon 2005). These results were verified against those of other interviewees, as well as through document review. Discursive construction was used to understand and present a coherent picture of the legitimacy of collaborative water governance in Quebec (Holstein & Gubrium 2011).

Table 3. Interviewee roles and watershed organizations.

Interviewee Role	ABV des 7	SCABRIC	COBAMIL	Quebec/Other	Total
Organization Staff	1	2	3	2*	8*
Economic	1	0	3	0	4
Social	3	2	1	0	6
Local Government	5	6	2	0	13
Regional Government	1	1	2	0	4
Policy, Government Administration	0	0	0	6	6
Total	11	11	11	8	41

*Note: several individuals represent multiple sectors, organizations or levels. Only their primary and most relevant role has been included here.

4. Results and Discussion

Results are presented in the form of dominant narratives and perspectives that illustrate the legitimacy of collaborative water governance in Quebec. Important issues and differences in legitimate perspectives identified from interview responses are organized and discussed according to Beetham's dimensions of legitimacy: legality, justification and consent. Important differences between levels of analysis are emphasized. Furthermore, although this analysis is a single case study intended to understand a sample of legitimate perspectives at different levels rather than to provide a cross-case watershed comparison, significant differences in legitimacy between watersheds are also noted to avoid treating watersheds as homogenous.

4.1. Legality

Legality, as previously defined, refers to whether an arrangement conforms to established rules. Since contemporary forms of governing are often evolving and less formal than traditional government institutions, the existence of established rules and practices cannot be assumed. This potential lack of clear and established rules and procedures is relevant because the process of collaborative water governance in Quebec has evolved and matured rapidly since the Quebec Water Policy was adopted and watershed organizations were set up. At its inception in 2002, the process lacked clearly defined rules that worked well in practice. For example, interviewees that were involved in the official creation of the oldest watershed organization in this study described their original mandate as unclear and too broad. The process was trial-and-error, such that guidelines and deadlines from the government were changed several times. As a result, the collaborative process and its rules have presented a moving target, such that determining whether key actors such as organization staff conformed to established procedures and rules was difficult. This result supports previous findings that determining whether actors followed established rules and conventions has proved challenging (Connelly 2011).

However, the process and participants' roles became clearer and better adapted to individual watershed realities over time. Watershed organizations have worked closely with the ministry of environment to improve the process with the assistance of ROBVQ, the provincial organization that represents them. For example, although the policy originally articulated that local stakeholders from economic, governmental and social sectors were to define the content of water master plans, technical committees were created after the need for their expertise was identified. Similarly, ROBVQ developed guidelines, training opportunities and tools that enable watershed organization staff to achieve their mandates (ROBVQ 2014). As a result of this coevolution, adherence to the established rules and procedures of water governance set out in the Quebec Water Policy has been unproblematic.

In addition, this multi-level perspective provided a new insight not captured in previous studies that have limited their scope to the organizational level. Interviewees at all three levels of analysis expressed concerns that local actors involved in collaborative water governance did not adhere to laws and regulations that, although not directly related to collaborative governance, strongly affected its effectiveness. In many instances, local and regional governments did not possess the resources to enforce local bylaws or monitor water quality. This result was seen in all

three watersheds, although not homogenously. In the largest watershed, half of all interviewees mentioned challenges of local governments related to enforcing regulations as a barrier to the collaborative governance process. These concerns related to diverse challenges such as pollution of lakes, enforceability of agricultural regulations and control of invasive species. Meanwhile, interviewees affiliated with the oldest organization and thus had more experience with the evolution of water governance in relation to other rules and guidelines, described challenges related to the evolution and appropriateness of rules and procedures. One mayor in that watershed described municipalities' inability to adequately monitor and enforce regulations on septic tanks given limited funding. The third watershed organization was much younger, such that legality was much less clear. Nevertheless, interviewees representing the agricultural sector emphasized that enforcement of agricultural regulations was high, while several other interviewees noted that the ability of local governments to meet provincial requirements was problematic. In all three instances, the inability of local actors to enforce regulations was seen as a barrier for watershed organizations to achieve their mandates and protect water quality. This detracted from the legitimacy of the collaborative process even though these laws and regulations were not the jurisdiction of watershed organizations.

Likewise, failure of provincial ministries to enforce regulations or implement goals stated in the Quebec Water Policy detracted from the legitimacy of the process. For example, a public administrator from the Quebec Ministry of Environment (MDDELCC) articulated the need to change the approach of the provincial government as well as of those in local watersheds: "we have to educate not only citizens, but also the administration on how to proceed." In the absence of effective implementation of larger institutional mechanisms, such as the user- and polluter-pays principles proposed in the Quebec Water Policy, water issues remain of little concern for actors that have a large influence on water uses. These results stress the importance of understanding and assessing institutions within their larger institutional context.

4.2. Justification

Justifications that ground legitimacy may be according to shared beliefs based on a common source or understanding of the world (source norms) and the way things are done in practice (content norms) (Beetham 1991). First source norms, then content norms are discussed.

4.2.1. Source Norms

The legitimate sources of decisions were critical to the legitimacy of collaborative water governance in Quebec at all levels. Over half of all interviewees explicitly mentioned the sources of decisions as a concern, although these concerns reflected diverse positions on what counted as the most legitimate source of decisions. Within watersheds, three distinct types of normative claims were made regarding the legitimate source of decisions.

The first type of claim was that decisions should reflect the interests of citizens. Several interviewees expressed the opinion that collaborative decisions should reflect the interests of all citizens, rather than only select groups or individuals. For example, one local business owner articulated this view: "The purpose of an area should be a community thing. There is no industry or single landowner that can decide for everybody; it requires a collective effort." The organizer of a local environmental group echoed this idea, expressing that watershed organizations needed to be informed by grassroots issues and driven by citizens' concerns. The few interviewees who supported this claim all expressed approval of the organization for addressing the interests of citizens.

However, even more local stakeholders and organization staff expressed that decisions based solely on the interests of people were problematic and often inadequately informed. For example, a scientific advisor on one organization's technical committee expressed their concern that uninformed public opinion might not reflect the urgency and importance of water issues in their territory: "We need to cope with the perception of the population. It's an issue of communication. It's an issue of priority." Without the most relevant and credible information, decisions lacked legitimacy. For example, in all three watersheds studied, initial priorities from public consultations reflected short time scales and often omitted important water issues such as flooding, which later had to be incorporated into plans. This result supports existing research that emphasizes the limitations of decisions based solely on public perception (Pierson 2000; Vatn 2005b).

The second type of normative claim, that decisions should primarily be based on scientific evidence, often accompanied concerns related to decisions based solely on public interests. Multiple individuals in each of the three watersheds expressed concerns that decisions were not sufficiently informed by scientific understanding or expertise. This perspective was especially prevalent in the second watershed. Several interviewees in this watershed questioned

the sources of information and their scientific validity, which for them detracted from the legitimacy of the process. Decisions made by watershed organizations and rationales for their plans required a more thorough scientific basis. This deficit in legitimacy meant that the organization did not appear neutral and unbiased. As a result of this perception, each of these stakeholders participated in meetings with the express purpose to ensure that decisions were informed by sufficient scientific expertise and local experience; these individuals were intimately involved with water issues and felt it important to share their knowledge. For example, an urban planner representing their RMC ensured that the watershed organization staff had correct data from the city and connected them to sources information.

This example also illustrates the third type of claim, that decisions should be informed by local experts, those who have intimate knowledge – scientific or otherwise – of local issues and their context. As such, good information was not solely scientific information. Rather, locally informed experience and contextual knowledge were important to account for the physical characteristics of the watershed as well as the social aspects. This view was dominant among interviewees that participated on technical committees, especially in the second and third watersheds. For example, in the third watershed a representative of the agricultural producer's union (UPA) expressed their rationale for participating was to communicate proper information from farmers' perspectives: "There are limits to what we can do and I think that being involved in that kind of project is a way to better communicate the reality of farmers." Similarly, a ministry representative became involved because they possessed information about water levels and public health concerns that were important to communicate.

Although these normative claims about the legitimate sources of decisions conflicted in some instances, they were not mutually exclusive. In most instances, they were balanced and thus all taken into account by organization staff such that a combination of these sources was the most legitimate source of decisions. One organization staff member described how opinions of stakeholders and technical committee members aligned, but expressed that this was fortunate. In the event that these perspectives had conflicted, they explained, "it would have been difficult to resolve which one is more important. It is really hard to say." A staff member in a different watershed faced a similar challenge. When asked what the basis for decisions were following initial public consultations, a staff member of that organization responded, "It's totally irrational." They continued that, following such results, they brought together a technical

committee to complement public perspectives. Staff in all the watershed organizations studied have attempted to ground decisions in scientific understanding, but possess limited resources, while integrated watershed planning often requires information on a diverse range of complex issues. Despite preparation of extensive, multi-stage plans that include a profile of their watershed, identification and prioritization of issues, and an action plan, watershed organizations face inherent limitations to the amount of information they can integrate.

The Quebec Water Policy similarly appeals to three distinct normative claims regarding the source of legitimate decisions: decisions should reflect the interests of citizens, they should be locally informed, and they should be based on scientific evidence (Quebec 2002). For example, one of its key principles is, "The acquisition and dissemination of information on the state of water and on the pressures to which it is subject are an essential component of integrated water management (Quebec 2002, p17)." The policy elaborates that decisions "must be based on the best possible information and knowledge about the territory, the resource, ecosystems, management tools, and concerted effort mechanisms (Quebec 2002, p22)." The rationale is that decisions must be based on an empirical understanding of the world and the idea that non-human species and future generations can only be represented by appealing to epistemic norms rather than solely human interests (O'Neill 2001). However, the policy also appeals to norms of both participatory inclusion and local decision-making, referring to the responsibilities of "all members of society" and reliance on "local and regional expertise (Quebec 2002, p19)." Moreover, the policy emphasizes both a shift in the source of decisions from government directives towards locally informed decisions through integrated watershed management, while emphasizing the importance of scientific sources of decision-making (Quebec 2002). Hence, at the provincial level the Quebec Water Policy's focus on water governance emphasizes a change to decision-making that entails the ministry actively participating in watershed organizations and learning from their experiences and knowledge. Rather than top-down decision-making, decisions were intended to incorporate local knowledge, practical experience, and scientific expertise to complement and support local collaborative institutions.

Accordingly, several interviewees at the Quebec level articulated the need to balance these normative positions, emphasizing the importance of science-based decision-making, but also the benefits of locally informed decisions. Furthermore, politicians and public administrators at the Quebec level expressed that decisions needed to balance social information

as well as scientific facts and data. However, uptake of these norms has not occurred within government administration where traditional norms of state decision-making persist. Although a majority of those interviewed at the Quebec level maintained that decisions *should* be informed by local understanding and expertise, interviewees emphasized that uptake of these norms had not occurred throughout government administration. One public administrator who had been intimately involved in developing and implementing the Quebec Water Policy expressed their concern that the intended approach of government listening to and learning from experts in watersheds had been lost: "We have a lot to learn from people in the watershed. They know some things that we cannot necessarily understand by looking at the data." They continued that this mentality remained an ideal rather than a reality within the ministry of environment.

These results demonstrate that a disconnect in source norms exists between decision-makers at the local watershed and Quebec levels. While processes are justified by local stakeholders using collaborative and participatory rationales – that input should come from local individuals closest to and most affected by decisions, and that decision-making should include all interested groups that can influence decisions, – the idea that elected officials make decisions on behalf of citizens remains dominant within the ministries of the provincial government. Although some policy-makers advocate for fundamental changes to governing that reflect locally informed decisions and increased engagement between the provincial and watershed levels, source norms at the Quebec level continue to hinder their support of collaborative governance and realization of the ideals of the Quebec Water Policy.

4.2.2. Content Norms

Justifications that ground legitimacy may also be according to the content of decisions - the way things are done and the outcomes of those processes (Beetham 1991). Collaborative governance entails changes that affect who decides, how, and the outcomes of those decisions (Ansell & Gash 2008). These issues are discussed, organized according to four topics: inclusion, reliance on a voluntary process, effectiveness and the complementary roles of watershed organizations.

4.2.2.1. Inclusion

Responses related to inclusion varied widely, many indicating that it either significantly contributed to or detracted from the legitimacy of the collaborative process. Most local stakeholders interviewed did not view inclusion as problematic. It was either not an issue or they supported watershed organizations based on its ideals of inclusiveness – that all members of the community should have input into decisions since they are closest to issues and will be most affected by decisions. However, while those individuals had not encountered insurmountable barriers to participation, they did describe several such barriers that prevented others from doing so. The size of watershed territories was a primary determinant of whether processed were inclusive or not because geographical distances made participation a challenge, especially in the two larger watersheds. Often, local stakeholders did not have the time or finances to participate when meetings were located at farther distances from their homes or workplaces. Furthermore, those who had to attend meetings on their own time rather than being paid faced an additional financial deterrent. Language was not widely perceived as a barrier to inclusion, although a bilingual member on the board of directors of one watershed organization mentioned that some mayors in the territory did not participate due to language barriers. Thus, from the perspectives of local stakeholders, inclusion remains an ongoing challenge, although not a critical legitimacy deficit.

In contrast, a majority of watershed organization staff and Quebec level interviewees expressed that inclusion was an important concern requiring their attention. Some maintained that inclusion was less problematic: "Everybody's invited. It's easy to be at the table." Similarly, a politician at the Quebec level noted that, although inclusion was limited in practice, the ideal of equal access was achieved: "Of course not everyone can be involved, but everyone who wants to be involved should be able to be." However, these ideals were problematic in practice. For example, one collaborative process was praised for participants' objectivity and willingness to listen to others. However, organization staff noted that the group was small and remained exclusive to those with technical expertise. This was an example of the scale problem of deliberative forums, whereby ideals of open, reasoned decision-making are only possible at small scales, limiting inclusion and access (Parkinson 2003). Thus, as seen in this instance, inclusion may face practical limits.

Furthermore, the Quebec Water Policy and subsequent provincial guidelines emphasize the importance of inclusion, requiring equal representation from municipal, economic, and social and environmental sectors on watershed organizations' administrative councils, as well as the inclusion of First Nations (Quebec 2002; MDDEFP 2012). However, in Quebec watersheds, certain contexts and issues required participation of certain actors or groups that posses influence, power, capacities and resources more than others, which may lack meaningful ways to participate. For example, in one watershed for which agriculture was the dominant land use, farmers were viewed to be some of the most important stakeholders to include since water issues were affected most by agriculture. In other watersheds, municipal water use was the predominant concern and cities were thought to possess the majority of responsibilities and capacities to address water issues. Organization staff in all three watersheds viewed local governments as some of the most important stakeholders to include since they often possessed the capacities to act and the democratic mandate to make relevant decisions. One staff member in a more urban watershed expressed that municipalities hold so much responsibility for managing water that they absolutely must be included. However, for them, this reality caused tension with norms of equality because watershed organizations were not supposed to favour any group.

An additional concern of both watershed organization staff and Quebec policy-makers was whether the collaborative process was appropriate for all contexts and issues. In some contexts, the inclusive approach of collaborative water governance was highly effective. For example, collaboration may be uniquely suited to fostering norms of collective responsibility, especially for problems for which responsibility is dispersed. In particular, the watershed approach has been successful at addressing issues such as non-point source pollution from agriculture because diffuse problems may be viewed as everyone's problem and therefore easy for everyone to ignore. The director of one watershed organization stated, "If we sit together we can't say I'm not responsible." They explained that bringing everyone to the table means that those responsible will also be present so that noone can be used as a scapegoat. They continued: "diffuse problems must be recognized by everybody, and everybody has an action to do." In other contexts inclusion remains a significant barrier. For example, inclusion of First Nations as simply a regular stakeholder was not viewed as appropriate. Rather, First Nations often work nation-to-nation, addressing issues with the Canadian government as a result of complex history and political issues. While adequate attention to issues related to First Nations was beyond the

scope of this research, it is clear that collaborative governance may not be appropriate for addressing all issues and engaging all sectors or groups in the same way.

4.2.2.2. Reliance on a Voluntary Process

The voluntary nature of collaborative governance in Quebec was highly controversial, in some instances detracting from its legitimacy, while in others, lending to its legitimacy. Interviewees at all three levels of analysis were divided on whether the voluntary nature of the process was appropriate or not and whether various aspects should be mandatory.

At the watershed level, some individuals in each watershed expressed that the voluntary approach was more legitimate than forcing people to act. Furthermore, local stakeholders such as farmers were more willing to work with watershed organizations once they realized that the process was voluntary and that they would not be forced to do anything against their will. Comparing the voluntary process to its alternative, one farmer expressed this opinion: "If it's forced, I don't think it would be better. I think that it would be worse." As a result, watershed organizations were viewed as neutral and unbiased, which added to their credibility. Similarly, one watershed organization employee expressed support for this approach: "That's why we think people will agree to work with us; because it's not something imposed on them."

This approach, as outlined by the Quebec Water Policy, was intended to be most legitimate to local stakeholders. A policy-maker who helped develop the Quebec Water Policy explained that the process was made voluntary so that watershed organizations would be neutral and have greater capacity to solve conflicts between water users. In particular, the watershed organizations were designed to have moral rather than legal power, and therefore must rely on their legitimacy. This interviewee explained the idea: It was "to give the watershed organizations the moral authority to coordinate actions on a watershed. They have no legal power, but they have the responsibility to bring all stakeholders together to write the master plan, and after that to have stakeholders implement the master plan." However, even this individual, who was intimately involved in developing the policy, expressed that the voluntary approach was a political compromise and an imperfect solution. They admitted that the voluntary nature of the watershed organizations may be the Achilles heel of the Quebec Water Policy.

The voluntary nature of the process and its reliance on moral compliance was a predominant concern among all interviewees. In the absence of regulation or enforcement,

collective responsibility was perceived as inadequate for realizing substantive results. As one organization staff member expressed, collective responsibility has its limits:

> "There is a collective responsibility in saying that the environment is important, in saying that preserving the water is an important issue. So preserving the shoreline vegetation is considered correct [behaviour]. If you are destroying it you are not considered a responsible citizen. But it's a long way [from acting]. On a certain level, you need to have a way to constrain people to do certain things. Some will do and some will not."

Similar concerns - that reliance on collective responsibility, coupled with a lack of regulation was problematic - were explicitly voiced by nearly half of all interviewees. A former mayor succinctly summarized this general concern but lack of collective responsibility: "Everybody wants to go to heaven but nobody wants to die." This individual explained that voluntary measures are limited, and that regulation is needed since a certain proportion of people will always break the law; values and education have limitations.

But, the process could not simply be formalized to make participation or implementation mandatory because this was not the appropriate role of watershed organizations or the collaborative process. Interviewees at all levels expressed the collaborative process should not be mandatory or enforced. One farmer clearly expressed this sentiment: "It's not their role. Their role is to put people around the table." Similarly, a regional government representative from the Ministry of Municipal Affairs and Land Occupancy (MAMOT) expressed their reasoning for why collaborative governance should be voluntary: "We cannot have two sets of regulations." They continued, "Regulation is the object of governments." Rather, a majority of those interviewed perceived the voluntary role of watershed organizations as appropriate in relation to established institutions of representative democracy, including that elected representatives should make decisions.

However, in the absence of mechanisms of accountability, it was unclear what can ensure effective implementation of watershed plans. One agricultural representative expressed that, since the process was voluntary, in the absence of collective responsibility, some mechanism to hold actors to account was needed:

> "It needs some kind of coercion to make it more effective, but coercion for every group. There's a need to have some kind of accountability for every group, so if you commit

your organization [to actions] and fail to do them, there should be some kind of sanction. If there's no sanction it's everybody's problem and nobody's problem."

Lack of mechanisms for accountability is a common deficit of voluntary processes (Cohen & Davidson 2011; Huitema et al. 2009; Ribot 2006). Elsewhere, transferring responsibility from elected representatives who can be held accountable for their decisions, to voluntary participants has resulted in weak implementation and inaction (Pellizzoni 2004). However, no adequate solution yet exists, either in Quebec or elsewhere.

Those at the Quebec level recognized that it was important for collaboration to fit well with existing institutions. From a government perspective, voluntary initiatives are one element, to be complemented by regulation, incentives, education and other measures. One regional government administrator articulated this perspective:

"It's all an equilibrium between regulation and a [voluntary] watershed group approach. But when you commit to plans and actions, you turn back and say, 'you [the government has] the tools, regulations and education to change some things.' Some issues in environment will be changed by regulation, some by programs or initiatives, some by education. So it's a big puzzle to work on environment."

Government representatives and watershed organization staff in Quebec recognized that implementing plans requires multi-level commitment and action.

The question of how the voluntary collaborative process and existing democratic institutions can fit best together remains largely unresolved. Uncertainty about how these institutions might best fit together is exemplified by the ongoing debate about whether regional municipal councils (RMCs) should be mandated to incorporate watershed plans into their regional land use plans. It is perceived to be highly problematic to require elected representatives at RMCs to abide by decisions made by watershed organizations since participation in them is voluntary. These tensions were especially evident from interviews within the Quebec government. Policy-makers articulated concerns that mandating implementation of watershed plans, which were a product of a voluntary process, was problematic as well as concerns that the legal status of watershed organizations was not ideal. However, with the continued evolution of and government improvements to collaborative water governance in Quebec, the collaborative process has the potential to effectively fit with existing institutions.

4.2.2.3. Common Interest

Justifications that collaborative governance achieves ends that are in the common interests of society are of particular concern for the legitimacy of collaborative governance (Wallington et al. 2008). Legitimacy and effectiveness are closely related, although their connection remains largely unexplored (Pellizzoni 2004). Interviewee responses about whether collaborative water governance in Quebec achieved commonly justifiable ends are presented, organized according to two topics: effectiveness and the complementary roles of watershed organizations.

4.2.2.3.1. Effectiveness

Concerns about the ability of collaborative water governance in Quebec to address a common interest were paramount. The most common metric for success among interviewees at all levels was whether the process was effective, measured in its ability to achieve tangible results. A majority of interviewees supported and agreed with watershed organizations' roles and actions on the basis that they contributed to addressing water issues. For instance, local stakeholders frequently justified watershed organizations by referring to projects the organizations had either implemented or were instrumental in making happen. Interviewees referred to diverse examples including the revitalization of an urban creek, implementing water monitoring and education programs, projects to control invasive species, and coordination of a Green Corridor project in an agricultural region. An employee of one RMC who sat on a watershed organization's board of directors expressed how the watershed organization had gained legitimacy through implementation: "it's not everybody who wants to go out and get the shovel themselves and do 3km of shoreline, but [organization X] will do that." Thus, effective implementation of projects with tangible environmental impacts was a prime contributor to the legitimacy of collaborative water governance at the watershed level.

Quebec level interviewees also recognized the need for watershed organizations to demonstrate their effectiveness. They viewed it as necessary that watershed organizations achieve tangible results related to environmental conditions to legitimize the Quebec model of water governance. One provincial decision-maker articulated this view: "To be on the field is the best way for them [watershed organizations] to be recognized. And for the population to know that they exist, that's the best way." That same interviewee continued, "When they're working on

the field, they're not working on the water management plan so they're not doing what they're supposed to do." This role was justified despite organizations' mandates to facilitate the implementation of their plans rather than to implement them (Quebec 2002). Other interviewees from MDDELCC and representing watershed organizations at the Quebec level agreed that, while implementing projects was not organizations' primary role, it was important for their legitimacy.

Although implementation of projects by watershed organizations lent the process much needed legitimacy, the effectiveness of collaborative water governance in Quebec remains limited in scale and impact. The director of one watershed organization described that there existed limits to the scale of projects watershed organizations were able to implement: "Is this the best solution, I don't think so. We are doing small activities that in a small way show that we exist." Their approach simply demonstrated that they had the potential to be effective. Watershed organizations do not have even a small fraction of the capacities or resources required form them to have a meaningful impact on many of the issues they are attempting to address. The director of an environmental organization that had worked with two of the watershed organizations in this study further described the challenges these watershed organizations faced: "I see how much effort it takes for them to be known: they have to realize projects, they have to publicize, do a lot of communication to show the population what they're doing." Thus, although implementation grants the process partial legitimacy, whether the Quebec Water Policy and voluntary implementation are effective remains an outstanding question.

The future of the Quebec Water Policy and its effectiveness remain uncertain, as well as the policy's largest potential deficit in legitimacy. Perhaps unsurprisingly, all interviewees questioned whether plans would be implemented by actors other than watershed organizations, suggesting that with the prolonged absence of substantive results the process would lack widespread justification on substantive grounds. These concerns reflected uncertainty about whether plans would be voluntarily implemented once the ministry of environment approved them. In the absence of substantive results the process would have little meaning. Several interviewees, including local stakeholders and government representatives from the ministry of environment, expressed that creating watershed plans would have limited value unless they were implemented; while plans and strategic visions were important, they would only be meaningful if they had substantive impact on environmental conditions. A public administrator expressed their

concern that stakeholders would not commit to implementing watershed plans, stating it "is probably the biggest question." Concern over the long-term sustainability of the Quebec model of collaborative governance, especially at the Quebec level, reflects the need to implement actions rather than merely produce plans. These results support previous findings that collaborative initiatives need to be perceived as doing good for society, and "not just a 'talking shop' (Connelly 2011, p937)." They also emphasize that the largest outstanding concern related to the legitimacy of collaborative governance may be the extent to which collaboration actually leads to substantive results (Baird et al. 2014).

4.2.2.3.2. Complementary Roles of Watershed Organizations

In addition to addressing common interests by implementing tangible environmental projects, collaborative water governance was also justified because it performed functions and addressed social needs complementary to the roles of existing actors, especially governments. This perspective was shared among all levels, but especially among a large majority of local stakeholders interviewed. In many instances, processes of representative democracy and new institutions of collaborative governance were complementary at the watershed level. The voluntary nature of the collaborative process enabled watershed organizations to interact with local actors and interest groups differently from governments, allowing them to perform functions complementary to governments, and thus increasing the legitimacy of both collaborative processes and larger institutions of governance. These functions addressed common societal interests by producing of a common vision, conducting environmental education, developing knowledge and shifting values within society. Interviewees frequently cited education as a justified and needed role that watershed organizations filled, while others perceived the policy, planning and coordination functions that watershed organizations performed as important. One interviewee representing an environmental organization expressed their approval of the collaborative process, which they referred to as "the production and promotion of a common vision and way of relating to the land." In these ways, collaborative governance filled a social need beyond implementation of tangible actions.

This complementary role was further legitimized because the role of elected representatives was perceived to be inadequate to address certain social needs and protect the common good. Justifications for the importance of watershed organizations from all sectors were

often accompanied by rationales that they performed a function that government would not be able to, such as production of a common good beyond the scope and mandate of the government. Notably, elected representatives themselves, as well as others involved in government saw collaborative water governance as a legitimate institution complementary to government. Many of them articulated the limits of government, implicating the need for alternative institutions to fulfill social needs. For example, one mayor expressed the view that government was unable to address issues related to social values: "I know government represents people, but we're just representing, we're not making somebody care about something. And I think that there's an element of taking care of something that is missing in all of this." This perspective reflects longstanding debates about whether representatives should act simply as delegates for their constituents' interests or as trustees of the public well-being, which the notion of care reflects (Urbinati & Warren 2008). Modern democracies rely heavily on the delegate model, which favours the interests of the people rather than collective well-being. Thus, collaborative governance may address social needs such as trusteeship for the common good, helping to rebalance collective interests with individual self-interest.

Not only was government viewed as unable to meet certain needs, but it was also seen as desirable that citizens themselves be encouraged to act. One former mayor from a different watershed described the need for other institutions in addition to government that allow for collective action and alternative approaches: "Government fulfills some needs of citizens, but hopefully not all the needs of the citizens." They continued, "Citizens must themselves take the lead." Furthermore, one employee from an RMC in that same watershed expressed that since watershed organizations were at arms length from the government, their position enabled them to present information and act in the public interests in situations where elected representatives might be politically restricted. This view was echoed by a government scientist in the third watershed. Thus, even from the perspectives of elected representatives, collaborative watershed governance may play a complementary role to that of governments. Their performing social functions that would otherwise be lacking thus contributed at all levels to the legitimacy of collaborative water governance in Quebec.

4.3. Consent

In Quebec, acts of consent related to collaborative water governance varied widely among groups and levels. Local stakeholders expressed consent through diverse means including participation in meetings and consultations, collaboration on projects, implementing projects, and incorporating watershed plans into regional plans. In the three watersheds there was consistent participation on the board of directors for each watershed organization, for which a large majority of the seats were filled, signifying substantial consent to the collaborative process by key stakeholders. In all watersheds, there were at least a few individuals who strongly supported their watershed organization and advocated on its behalf. In one instance, several well-known and respected community leaders and local politicians were closely associated with and advocated on behalf of a watershed organization, enabling it to gain more rapid and widespread support in its territory. The participation of a core group of individuals is important because participation of important, high profile actors can add considerable legitimacy to decisions; their participation signifies their consent (Hendriks 2009). However, at least one watershed organization director expressed that voluntary commitment to implementing water master plans may need to be done publicly to better demonstrate key actors' consent. A potential mechanism for signifying consent is by signing a river contract, as was the original intention in the Quebec Water Policy (Quebec 2002). Although signing a contract or agreement holds potential to reinforce stakeholders' moral commitment, this strategy was met with hesitation from several organization staff since stakeholders may be reluctant to sign even a non-binding agreement.

While in all three watersheds, a core group of key stakeholders clearly supported collaborative governance, it remains unclear the extent of consent beyond these groups. In these watersheds, the consent of actors and interest groups beyond core stakeholder groups varied widely. The participation of municipal and RMC representatives, but also their more close involvement, was most common. In each of the three watersheds, many of these representatives for local governments participated regularly, although a few did not, often depending on personal opinions or relations. Others engaged in more active partnerships with watershed organizations, sharing resources, implementing projects, and partnering to put on community events, as was the case with a large city in one watershed. Social and environmental groups also supported the collaborative process in all watersheds, although the degree of consent they expressed often reflected how well their organization's vision aligned with that of watershed organizations. For

example, an interviewee from a Comite ZIP, an organization whose mandate was very similar to a watershed organizations', expressed high approval of the watershed organization they worked with, and had partnered with it on multiple projects. In contrast, an environmental organization in another watershed disagreed with the limited political engagement of watershed organizations and thus typically ignored or avoided the watershed organization in their area.

In some instances, lack of consent clearly detracted from legitimacy of collaborative water governance. In agricultural territories, farmers regularly participated and supported watershed organization initiatives, although the number of individuals that participated was relatively low compared to their total. However, with the exception of agriculture, the economic sector was notable for its lack of participation in all three watersheds, or in some instances its dissent through withdraw from participation. Commercial businesses and industries such as forestry rarely participated if at all, which detracted from the legitimacy of the process. In all watersheds, inclusion of economic interests was challenging because they had little incentive to participate. These examples demonstrate the range of stakeholder consent: active consent through clear partnership and support, tacit consent through participation or acceptance, and dissent by withdrawing participation or failing to acknowledge watershed organizations.

Furthermore, consent was varied and lacking from both citizens at large as well as from the Quebec government. While public consultations or events involved up to 200 participants, participation was typically much less, representing what was arguably a quite small fraction of the population of a watershed. Lack of more widespread participation reflects limited knowledge and support of collaborative water governance in Quebec, implying the need for both increased education and visibility of watershed organizations.

While consent may vary over time, the Quebec government clearly demonstrated consent to collaborative water governance in the past. Watershed organizations were set up with strong involvement and leadership from the ministry of the environment (Quebec 2002). The ministry supported watershed organizations, providing funding and expertise, and acting as the main connection to the provincial government (MDDEFP 2011). Again in 2009, the Quebec government demonstrated further consent to legitimize collaborative governance: funding for watershed organizations was almost doubled to approximately $125 000 per year, accompanied by an increase in the sizes of existing watershed territories and creation of seven new watershed organizations (MDDEFP 2011). That year, Quebec also adopted the a law which legally

recognized water as a common resource for the people of Quebec and identified the Province of Quebec as the guardian of water in the public interest through the ministry of environment (Cumyn 2009). Article 15 of this law states that all governmental stakeholders, including municipalities and RMCs, must "take the plan into consideration when exercising their powers and duties under the law (Quebec 2009, p9)." The force of this law is limited since governmental stakeholders have no legal recourse for not implementing the plan. As one government policy-maker described, this law was more a recognition of the water policy and watershed organizations, as well as their importance than a strong legal tool.

However, government consent in recent years has been lacking. Policy-makers and organization staff alike view watershed organizations as needing close relationship with and support from the Ministry of Environment to ensure continued success as well as participation of stakeholders. For watershed organizations to follow and implement government policy, those organizations need regular access to, and interaction with, regional ministry representatives that understand local context and issues, but also government procedures. Decentralization requires support, expertise, and funding that are often not available at the local level in smaller or more rural areas. One government administrator noted, "for real collaborative water governance all stakeholders have to be there and government is a stakeholder." Pervasive reduction in government staff means that all ministries that were interviewed were increasingly limited in the expertise and support they were able to provide to watershed organizations. In addition, participation on the interministerial board that has been tasked to integrate ministry monitoring and actions on the Quebec Water Policy has declined (Vérificateur général du Québec 2013).

Recognition from MDDELCC related to use of watershed plans is also lacking. One organization staff member articulated that government consent to their plan was limited: "They recognize it. We have the ministry's seal. They approve it, but they are not using it at all." A staff member from a different watershed organization expressed similar concerns that the process was limited by lack of consent from MDDELCC: "The voluntary part in my opinion is pretty important but that is not working because we send the water master plan to the government and every ministry reads it but they don't do anything with it." Notwithstanding concerns voiced by some Quebec level interviewees that plans may be too long and inconsistent, MDDELCC's lack of significant recognition or use of watershed plans represents a further lack of legitimacy.

Finally, limited funding and resources provided by the Quebec Government reflects their further lack of consent to collaborative governance. Substantial implementation of watershed plans will require increased commitment and support from the Quebec government (Vérificateur général du Québec 2013). However, the Quebec government has limited, if not partially withdrawn its support for collaborative governance in recent years by reducing expertise, limiting its recognition of watershed plans, and maintaining limited funding. Similar lack of government consent has been observed to hinder legitimacy and effectiveness elsewhere (Bell & Park 2006; Ribot 2002). Establishing appropriate means of expressing public and government consent remain outstanding issues for the legitimacy of collaborative governance.

5. Conclusions

This research identified diverse sources and deficits of legitimacy for collaborative water governance in Quebec, while demonstrating the importance of assessing legitimacy from multiple levels and perspectives. Legality was largely unproblematic as collaborative institutions were able to coevolve with expectations from MDDELCC, although lack of regulation and enforcement related to existing institutions detracted from the legitimacy of collaborative institutions. Justification was grounded in a balance of sources, including epistemic knowledge, local expertise and citizens' interests. Content norms, such as inclusion, reliance on a voluntary process, and effectiveness, each demonstrated how legitimacy draws on multiple sources, but also that these sources are often in tension. The interconnected nature of the dimensions of legitimacy was evident in the tensions between these factors, such as the conflict between the voluntary ideal of collaboration and concerns about its effectiveness. Nevertheless, these results indicate that, at base, legitimacy must be grounded at least in part on meeting the common interest. Further, lack of consent at the Quebec level demonstrates that there is a disconnect between what is legitimate at the watershed level and the level of the Quebec government. Different perspectives on what constitutes legitimacy between local actors and provincial decision-makers can create challenges for organization staff (Booher 2004). These intermediary coordinators may be stuck trying to resolve conflicting perspectives and justifications from policy-makers 'above' and collaborators 'below' (Newman et al. 2004). Further research is needed to understand the agency of individuals such as organization staff in shaping institutions and their legitimacy.

Despite this disconnect, representative government and collaborative governance are not mutually exclusive (Urbinati & Warren 2008). Rather, some argue that "collaborative governance practice is emerging as an *augmentation to existing government, not a replacement* (Booher 2004, p41 emphasis added)." This consideration is important because voluntary approaches are often ineffective without regulatory intervention by governments (Layzer 2008). Indeed, the Quebec Water Policy states that collaborative watershed organizations are intended to complement government regulatory measures such as the user pays and polluter pays principles (Quebec 2002). However, these measures have not been implemented to a significant degree, emphasizing that barriers remain to making collaborative and representative models of governance truly complementary. Thus, one important challenge identified by this research is to figure out how voluntary and representative models best fit together and complement one another. A first step may be to identify in what contexts and for what issues collaboration is most and least effective.

Thus informed, it is governments that possess the capacities and appropriate mandates to support and complement the strengths and weaknesses of collaborative processes. Improvements to complementary methods of governing such as regulation, incentives and education may be required to improve the legitimacy and long-term effectiveness of collaborative governance. For example, reliance on voluntary approaches in the absence of regulation may result in lack of implementation: "Without an actual regulatory mandate, municipalities and water providers can find it difficult to meet their goals (Furlong & Bakker 2011, p228)." This research indicates that, perhaps counter-intuitively, if reliance on moral compliance through legitimacy is desired over coercive means, then careful and appropriate adjustment of coercive means such as regulation and enforcement by governments may also be important.

While effective implementation remains the greatest barrier to legitimacy, the challenge to ensuring legitimacy may be more subtle. Critical to further improvements in legitimacy is support for implementation from the Quebec government. However, the challenge is to increase legitimacy, especially by meeting the common interest, while improving the fit between collaborative governance and existing institutions. One novel finding of this research, that collaborative governance gained legitimacy by fulfilling social functions that government itself was unable to, has the potential to improve their complementarity by augmenting legitimacy related to meeting the common interest. The unique roles of watershed organizations, as trustees

of the common good but also with sufficient distance from the government to act in an advisory role and effectively identify and address politically charged issues, fulfills social in addition to substantive notions of the common interest. Further enabling watershed organizations to play these complementary roles in relation to government will improve their legitimacy, as entities that address both substantive as well as societal needs. Fostering their complementary nature, and the rules for how the two could work together may be critical to ensure processes are commonly justified, effective and legitimate. This task requires ongoing government support through instruments such as policies, regulations, enforcement of existing regulations, legislation and sustained funding, for which responsibilities are not held at the watershed level. Situating collaborative governance within its larger institutional context has enabled understanding of these issues and this research provides a tentative first step towards achieving this end.

Several challenges were encountered, which have the potential to stimulate future research. One challenge to using Beetham's method is that his interpretation of legitimacy is based on assumptions derived from power relationships (1991). However, contemporary forms of governance do not rely as clearly on dominant-subordinate power relationships. In other words, who the dominant and subordinate parties are in contemporary governance arrangements may not be obvious, especially for voluntary collaboration. In these contemporary contexts, it is often unclear who can or should grant consent and how this should be done. Thus, establishing the legitimacy of less hierarchical institutions such as polycentric and networked governance, or even global markets, may encounter greater challenges if they are forced to rely on ambiguous or tacit forms of consent. In addition, the absence of several interest groups such as industry illustrates the limitations to voluntary collaborative approaches and the need for government support. Several important perspectives, such as First Nations and large industrial polluters, were not included in this research. These groups did not participate in the watersheds studied and more exhaustive sampling was beyond the scope of this research. However, understanding these perspectives is critical for determining the appropriateness of collaborative governance for different issues and contexts, as well as how other institutional solutions can best complement collaborative governance. Finally, given that collaborative governance, and any political institution, would ideally be legitimate to all citizens, evaluating its legitimacy presents an overwhelming task. These interrelated concerns were largely addressed by identifying those perspectives most pertinent to understanding legitimacy. This approach limited the

representativeness of results to a select group of individuals closely involved in collaborative institutions. Hence, these results were limited to identifying the sources and deficits of legitimacy for collaborative governance according to key stakeholders rather than a more exhaustive evaluation. However, this analysis remains highly relevant because legitimacy is never complete, but is an institutional ideal (Parkinson 2003). Identification of its sources and deficits provides a direction from which to progress in pursuing enhanced legitimacy and effectiveness of constantly evolving governance institutions.

Acknowledgements

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Connecting Text to Chapter 4

This chapter is a manuscript co-authored by the supervisor of this thesis, Dr. Jan F. Adamowski, as well as Dr. Wietske Medema and Dr. Nicolas Milot. This manuscript is being prepared for submission to the journal, Ecological Economics. All literature cited in this chapter is also included in the reference list at the end of this thesis.

Following identification of the sources and deficits of legitimacy in Chapter 3, Chapter 4 explores the strategies used by watershed organization staff in shaping collaborative water governance and its legitimacy. It uses similar methods as Chapter 3, but focusing on 13 in-person interviews with staff from six watershed organizations, as well as individuals with extensive experience with the organizations. The strategies identified illustrate the importance of agents in affecting institutional change, but also their limits.

Chapter 4

The Role of Agency in Shaping Collaborative Governance and its Legitimacy

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Abstract

Institutions, understood as collective strategies, enable societies to address problems collectively that might otherwise be intractable. Understanding how institutions change and can be changed is important because institutional design is imperfect even while institutions are constantly evolving. As a result, institutions must be adjusted and improved in situ, a process that entails both individual action and legitimation. However, the role of agents - key individuals that affect change - in shaping institutions and their legitimacy has been given little attention. Based on the proposition that agents are conscious of legitimacy, and may change institutions by shaping legitimacy, this research explores social-relational and ideational strategies employed by agents and their rationales in changing collaborative water governance. Data from 13 in person semi-structured interviews with staff and other key agents from six watershed organizations in Quebec, Canada, are used to understand how those agents have shaped collaborative processes and their legitimacy. Agents employed a combination of strategies, often coherently embedded in a common narrative. They shaped the legitimacy of collaborative governance by changing beliefs according to which collaborative practices were justified and encouraging behaviours that demonstrated consent to those practices. Furthermore, these strategies provided insight into how agents adapted collaborative governance to diverse contexts, despite inherent limits to institutional design. These results improve understanding of agency, but also its limits. In particular, agency varied among individuals, and thus required an enabling institutional

environment. In addition, while agents were instrumental in making collaborative water governance legitimate and effective at the watershed level, structural changes were often beyond the capacities of those interviewed. In this way, understanding agency can better ensure that institutions of environmental governance enable society to address its environmental challenges.

Résumé

La compréhension de comment les institutions changent et peuvent être modifiés est important parce que la conception institutionnelle est imparfaite, même tandis que les institutions sont en constante évolution. En conséquence, les institutions doivent être ajustés et améliorés sur place, un processus qui implique à la fois l'action individuelle et de légitimation. Cependant, peu d'attention repose sur le rôle de l'agence - individus clés qui causent les changements - dans l'élaboration d'institutions et l'assurance de leur légitimité. Sur la base de la proposition que les agents sont conscients de la légitimité, et peuvent changer les institutions en façonnant la légitimité, le rôle de l'agence dans la gouvernance collaborative de l'eau au Québec (Canada) a fait l'objet d'une étude visant à comprendre les stratégies socio-relationnelles et conceptuels utilisés par les agents et leurs justifications dans l'évolution de la gouvernance de l'eau en collaboration. Ces stratégies et leurs justifications fut étudiée grâce a des données obtenus en personne lors de 13 entrevues semi-structurées de personnel œuvrant dans six organismes de bassin versant québécois. Agents utilisé une combinaison de stratégies, souvent de manière embarqué dans un récit commun cohérente. Ils façonné la légitimité des institutions par le développement des connaissances dans la société selon lesquelles pratiques de collaboration ont été justifiées ainsi que encourageants les à démontre leur consentement à ces pratiques. En outre, ces stratégies ont donné un aperçu sur la façon dont les agents adaptés gouvernance collaborative de l'eau aux contextes différents, en dépit des limites à la conception institutionnelle. Ces résultats améliorer la compréhension de l'agence, mais aussi ses limites. En particulier, l'agence varie entre les individus, et donc requis un environnement institutionnel favorable. En outre, alors que les agents ont contribué à rendre la gouvernance collaborative de l'eau légitime et efficace au niveau des bassins versants, des changements structurels sont souvent au-delà des capacités des personnes interrogées. De cette façon, la compréhension de l'agence peut mieux se assurer que les institutions de la gouvernance environnementale permettre à la société de répondre à ses défis environnementaux.

1. Introduction

Despite already exceeding the carrying capacity of many of Earth's life support systems, humanity is degrading those systems at an alarming rate (Rockstrom et al 2009). Within this context, environmental issues present some of society's most pressing challenges, and water issues are among those most paramount (IPCC 2014). Meanwhile, there is increasing consensus that environmental problems, and water problems specifically, are rooted in mismanagement and poor governance rather than lack of scientific understanding (Poirier & de Loë 2010). Thus, collective action through improved environmental governance may better enable society to address many of its environmental challenges.

Environmental governance is the set of institutions that define how individuals in society collectively interact with their environment (Vatn 2005). While the term institution is commonly used as a synonym for organization, it has a much richer interpretation. That is, institutions are shared strategies or ways of doing things; these strategies include rules, norms and conventions that influence behaviour at all levels of society (Vatn 2005; Crawford & Ostrom 1995). This definition of institutions encompasses shared strategies that range from those more informal (and often implicit) to those more formalized (and often explicit). These diverse strategies shape and control human activity by providing predefined patterns of conduct, common frameworks by which individuals order experiences, allowing them to collectively understand situations and coordinate behaviour (Berger & Luckmann 1966). As such, institutions of environmental governance afford society collective solutions that would otherwise not be possible, better enabling society to address its environmental challenges (Vatn 2005).

Institutional design is critical to environmental governance because institutions may foster undesired as well as desired behaviour. For example, a policy or convention may encourage either self-interested behaviour or cooperation, thus exacerbating or helping to resolve an environmental problem (Adger et al 2003). Societies must determine what is collectively desirable and design institutions that enable them to collectively achieve those ends (Vatn 2005). This normative task has been the primary aim of institutional analysis thus far, as exemplified by the normative design principles for common property resources (Ostrom 1990).

Yet, good governance arrangements – sets of shared strategies – cannot merely be designed. Institutional design is limited because whether a particular strategy is appropriate for addressing an environmental problem depends on complex, context-specific attributes (Lemos & Agrawal 2005; Andersson & Ostrom 2008). Accordingly, there exist limits to knowledge: the complexity and scale of many environmental issues such as a changing climate may be beyond human capacities to fully understand or control (Funtowicz & Ravetz 1993). In addition, institutional design may be unable to account for diverse human interests and interactions (Lindblom 1959). For these reasons, explicit, pre-designed institutional arrangements may end up being poorly suited to fulfill their intended purposes within their unique (and ever-shifting) contexts. Therefore, comprehensive, rational pre-design of institutions may be limited and unrealistic.

Furthermore, institutions are not static, but constantly change over time. As such, institutional arrangements may often be as much trial-and-error as purposefully designed (Hybels 1995). This observation is especially true for environmental governance (Poirier & de Loe 2010). Institutions for governing the human relationship with the environment constantly evolve along with their changing social and physical contexts; they are and must necessarily be developed, adjusted and improved in situ. Formal arrangements such as laws, policies and regulations may be modified, or new ones proposed, as the adequacy of existing arrangements is evaluated and as any inadequacies are addressed. Meanwhile, informal and often implicit strategies such as conventions or norms may arise organically or be intentionally fostered in response to perceived needs. Hence, both formal and informal strategies may evolve organically, or be modified intentionally.

Given their evolving nature and limits to institutional design, understanding how institutions of environmental governance evolve and how they might be deliberately changed will better enable society to address its environmental challenges (Hotimsky et al 2006). However, institutional change related to environmental and natural resource governance is understudied (Poirier & de Loe 2010; Acheson 2006). Institutional analysis in general remains focused on institutional design rather than change (Pierson 2000; Ostrom 2007). In particular, there is a lack of attention to institutional change within both the commons and the organizational literature (Daniels 2007; Buchanan et al 2005). As such, the relationship between

institutional change and agency lacks coherent explanatory theory and has remained largely an exploratory task.

Social construction provides a theoretical framework to understand institutionalization, the process by which institutions arise and change (Berger and Luckmann 1966). Accordingly, two concepts are important for understanding institutional change: agency and legitimacy. Agency is the act of causing a particular result (Hybels 1995). Individuals are agents that influence both institutional stability and change. The role of agents is integral to institutional change because, rather than policy and institutional design, the agency of individuals may be the primary determinant of whether institutions achieve their intended purposes (McLaughlin 1990). In addition, legitimacy, as a fundamental characteristic of institutions, is required for their production and perpetuation (Hybels 1995). Without legitimacy, an institutional pattern of relations could not be sustained. Based on the proposition that agents are conscious of perceptions of legitimacy, and may respond to them, acting to change institutions, the question becomes: How and why do those individuals influence or change institutions?

Institutional experiments in water governance – in particular, collaborative watershed initiatives set up over the last few decades – provide appropriate contexts in which to address this question. Recent studies have emphasized the unique influence of watershed organization staff in shaping collaborative governance processes and their legitimacy (Booher et al 2004; Connelly 2011). These individuals shape institutions at regional and local scales, both interpreting government policies and mandates, and translating their interpretations of official goals into collective narratives and actions (Connelly 2011). Watershed organization staff may also define processes to engage stakeholders at the watershed level and shape stakeholder involvement over time (Booher et al 2004). Since these staff facilitate and coordinate collaborative processes, they may have a large influence on the ideology and ethos of their organization (Connelly 2011). However, the role of individual agents in shaping institutions of water governance in response to perceptions of legitimacy has yet to be fully explored (Prager 2010).

This research explores how watershed organization staff and other key agents involved in watershed organizations have shaped institutions of collaborative water governance in Quebec. First, a framework is developed to understand how institutions may be influenced by agency from a social constructivist perspective. This framework is premised on idea that agents change institutions in response to perceptions of legitimacy, using strategies aimed at changing the

legitimacy of those institutions. Next, the case study, collaborative water governance in Quebec, is described. In combination with the framework, an exploratory single case study method is used to identify the strategies employed by agents and their rationales for changing collaborative water governance within this context. Finally, patterns in the results, as well as their implications for institutional change and improvement in Quebec are discussed.

2. Literature Review

2.1. Agency as a Mechanism for Institutional Change

Institutional analysis of governance systems has been more effective at explaining institutional stability than change (Bell 2011; Mahoney & Thelen 2010). In particular, institutional analysis has been unable to adequately explain institutional change because researchers have paid insufficient attention to the dynamics between individuals and institutions (Schmidt 2011). For example, the three schools of institutionalism in political science and sociology view institutions as overly static, and individuals' roles as overly constrained by their institutional environments, resulting in institutional determinism (Bell 2011). As a result, institutional change tends to be attributed to exogenous effects such as crisis events, providing little explanatory ability to understand how institutions may endogenously change.

Considering how individuals in society influence institutions may enable researchers to understand endogenous sources of institutional change as opposed to simply exogenous ones. However, individuals are often analyzed in isolation from institutions, which has provided limited utility. For example, one argument for discursive institutionalism is that institutionalism focuses on stability while giving inadequate space to ideas and discourse (Schmidt 2011). However, discursive institutionalism has been criticized for not evaluating actions of individuals *in relation to their institutional contexts* (Bell 2012). As a result, analysis becomes analysis of individuals as opposed to analysis of institutions. This example demonstrates why it is important that individuals be considered in relation to institutions, rather than isolated from them. Otherwise, critical relationships between institutions and individuals may be overlooked.

These relationships are important because institutions are produced by human interactions (Berger & Luckmann 1966). While institutions are produced and perpetuated through ongoing, collective and evolving human interaction, the relationship between institutions

and individuals is dialectical: institutions shape individuals' beliefs and behaviours even while those same individuals shape institutions (Ishihara & Pascual 2012; Vatn 2005). Moreover, institutions are related to individuals through both collective beliefs and behaviours. Although institutions do not determine behaviour per se, they indicate what behaviours are (normatively) appropriate, given a certain (cognitive) understanding of a context or situation (Paavola & Adger 2005). The cognitive dimension has little use without basis in the empirical world, and the normative-behavioural component is given meaning through cognitive understanding and interpretation (Hybels 1995). As such, institutions are neither solely ideational nor solely interactional, but are shared strategies that proscribe 'belief-based actions.' In short, institutions combine sets of beliefs and appropriate behaviours that must be produced and perpetuated by individuals, even while they influence those same individuals.

Analyzing institutional change requires understanding *individuals in relation to institutions*. One challenge to understanding institutional change is to understand the complex, context-specific, and inherently dialectical relationship between individuals and institutions. To understand how institutions change it is important to understand how individuals that are embedded in, shaped by, and constrained within their institutional contexts, influence institutions (Bell 2011). However, there is a lack of empirically grounded theory about how individuals relate to institutions (Bell 2011).

Agency is a concept that may be instrumental to understanding institutional change because it posits how individuals affect and interact with institutions (Bell 2011; Crawford & Ostrom 1995). The concept of agency has been used in literatures ranging from sociology (Hybels 1995), behavioural science (Alvord et al 2004), political science (Bell 2011; Schmidt 2010), and policy and public administration (Beland 2005). More recently, agency has been looked at in relation to environmental and natural resource governance (Partzsch & Ziegler 2011; Straith et al *in press*; Westley et al 2011). Within these literatures, agency has been used to describe individuals employing diverse strategies in numerous contexts. Agents have been referred to as policy entrepreneurs, (Beland 2005), social entrepreneurs (Partzsch & Ziegler 2011), institutional entrepreneurs (Westley et al 2011), change agents (Straith et al *in press*), or simply agents (Hybels 1995). In all instances, agents are characterized by affecting institutional change. For the purposes of this research, agency refers to the act of producing or causing a particular result (Bandura 2001). Although institutions are collectively produced, individuals are

the fundamental elements that produce, perpetuate and may change institutions. Hence, individuals are agents that produce both institutional stability and institutional change; they produce institutional stability by perpetuating established beliefs and behaviours, but are also agents of social change, intentionally or unintentionally introducing novel beliefs and behaviours, or changing existing ones (Hybels 1995).

Several theories have proposed mechanisms for how agents influence institutional change. One proposed mechanism is a norm cascade, whereby norm pioneers spread a set of norms using education and persuasion (Finnemore & Sikkink 1998). A tipping point is reached, resulting in a norm cascade, whereby the norm or strategy is increasingly adopted. Norms are progressively institutionalized, but institutionalization may occur before or after a norm cascade. Norm pioneers are agents, using various strategies to encourage adoption of norms. However, beyond encouraging uptake and spread of norms, the theory provides little explanation for *how* agents affect institutional change. A different study looked at both the institutions and the dynamics of choice by actors involved in environmental governance (Berstein & Cashore 2007). The authors argued that political legitimacy develops through processes of learning and interaction in three stages similar to a norm cascade: initiation, building support, and political legitimacy. They showed that argumentation and convincing were most effective when norms were already institutionalized, implying that learning is important in advance of behaviour change (Bernstein & Cashore 2007). Another theory focused on gradual institutional change and the role of compliance (Mahoney & Thelen 2010). This theory-driven framework for how agents relate to institutional change in different institutional environments proposed different types of agents and corresponding strategies. However, the proposed strategies are not empirically derived and the simplifying framework is limited in assessing agents' complex motivations and actions.

In sum, the role of agents in shaping institutions of environmental governance has remained poorly understood because few theories posit adequate explanations for how agents relate to institutions (Hitlin & Elder Jr. 2007). Understanding these processes is challenging because human agency is complex, imperfect and difficult to evaluate (Pierson 2000). Institutions may be modified or enhanced by multiple processes and numerous actors (Hybels 1995). Current research is struggling to integrate analysis of agency with that of institutional change (Bell 2011; Schmidt 2011). A key problem is that there is a lack of empirically grounded

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theory about how agents relate to institutions (Bell 2011). In particular, analysis of the *interaction between agents and institutions* is needed to better understand institutional change (Bell 2011). Furthermore, there is limited empirical understanding of how agents affect institutions of environmental governance (Paavola & Adger 2005). Thus, the relationship between institutional change and agency lacks coherent explanatory theory and remains largely an exploratory task.

2.2. Agency and Legitimacy: The Means and Motives for Institutional Change

Legitimacy is a fundamental characteristic of institutions and legitimation is essential to the process of institutionalization (Berger & Luckmann 1966; Hybels 1995). Without legitimation, an institution would not be sustained (Hybels 1995). Legitimation involves both the moulding of knowledge and the shaping of behaviour (Hybels 1995). It spans cognition and norms through the process of explaining or justifying institutions through first cognitive meanings (understanding the way things are) and then proscribing norms (the way things should be done).

Although both are required, knowledge precedes values in legitimation (Berger & Luckmann 1966). At base, institutional change or perpetuation must be justified according to the beliefs and worldviews held within society. Conceptual machinery, including mythology, theology, philosophy and science, are the systems societies use to create and shape knowledge and meaning that make up the worldviews according to which justification occurs (Berger & Luckmann 1966). The institutions and the worldview that an individual perceives can also be transformed, in which case the individual is re-socialized to a degree. The most important requirement for transformation is its continual legitimation (Berger & Luckmann 1966).

Legitimacy, Beetham (1991) argues, is composed of three dimensions: legality, justification and consent. These dimensions can be interpreted according to a social constructivist account of institutionalization. First, institutions must be justified in terms of beliefs held within society (Beetham 1991). From a social constructivist perspective, institutions require justification because in order to carry conviction they need to be explained and justified to those whom they are transmitted to but who lack an understanding of the origins and meaning of those institutions (Berger & Luckmann 1966). In addition, legitimacy also requires consent, which reflects the adoption and perpetuation of shared strategies through social interaction

(Simmons 2001; Beetham 1991): "the extent to which a feature of social organization—such as a practice, category, or mode of exchange—is understood to be evident and accepted as real or true provides an indicator of institutionalization (Colyvas & Jonsson 2011, p40)." Through the lens of social construction, consent refers to acts of collective support, adoption and continued perpetuation that institutions require to persist (Hybels 1995). Finally, some suggest that stability and longevity are essential characteristics of legitimate institutions (Hybels 1995). This stability component, termed legality by Beetham (1991), refers to whether rules, norms or conventions are followed and the degree of stability or regularity by which an institution may exist and be followed. Legality is categorically different than the other dimensions because it reflects a state of institutions rather than a process of change. It is therefore not applicable when examining institutional change. Hence, legitimation is the process whereby institutions are established and changed through justification (the moulding of knowledge) and consent (the shaping of behaviour).

Legitimacy is related to agency because individuals often act upon conscious reflection of institutions and their legitimacy, implying that there are opportunities for working within institutions, but also for altering them (Hybels 1995). Individuals may have considerable knowledge of the structure and purpose of institutions and their legitimacy (Hybels 1995). As a result, legitimacy is not an unquestioned state, but may be explicitly considered, debated and shaped by individuals. Hence, legitimacy provides a potential mechanism by which to understand how and why agents affect institutional change.

Some evidence supports the claim that legitimacy influences agents to change institutional practices. For example, one study found that agents acted to affect institutional practices, "not because it advances the means-end efficiency of the organization but because it enhances the social legitimacy of the organization (Stoker 2004, p9 quoting Hally & Taylor 1996, p949)." Change in institutional practices often occurs because actors believe that it is morally just or appropriate, according to subjective values and beliefs (Hotimsky et al 2006). Similarly, others suggested that environmental practices may be adjusted in response to a perceived lack of fit between different perceptions of legitimacy at different levels, such as deficits related to concerns about inclusiveness (Quack 2010). Thus, legitimacy appears to be at least one driving factor that compels agents to act.

Identifying agents' strategies, but also their rationales for using those strategies can enable researchers to understand how and why individuals affect institutional change by both shaping knowledge and behaviour (Seabrooke 2010). Seabrooke suggests that agents use three types of strategies to affect institutional change: social-relational, ideational, and structural. Social-relational strategies refer to actions and their associated rationales that affect how individuals and groups interact and relate to one another, often influencing their behaviour and thus consent. Ideational strategies affect what individuals believe and how they interpret the world, changing or improving individuals' justifications for actions. Structural strategies are attempts to change larger the institutional context, including laws, regulations and larger arrangements. The first two types of strategies are directly related to agents' role in shaping legitimacy, while structural strategies are of a different nature, affecting the context within agents operate, and are thus beyond the scope of this research.

2.3. Social-Relational and Ideational Strategies

Research has not yet explicitly looked at the relationship between agency and legitimacy in the context of institutional change. One study in the water field identified different approaches to legitimacy building, but focused on how contextual factors shape what is legitimate while omitting agents (Gearey & Jeffrey 2006). A different study on the roles of individuals in shaping institutions for water governance supports the hypothesis that agents adapt institutions to unique contexts, identifying strategies that were used to shape social contexts at the policy level (Huitema & Meijerink 2010). However, this second study did not specifically look at legitimacy and no such studies exist for basin organizations at the organizational level.

In addition, some research has identified instances in which specific strategies have been used to shape legitimacy in the environmental field, although consideration of agents and their rationales are often omitted. One study used a discourse theoretical approach to examine dominant discourses of legitimacy within the EU Water Framework Directive (Behagel & Turnhout 2011). This research showed how power relationships among individuals shaped the legitimacy of a participatory process through the dominance of a hegemonic discourse so that participatory and deliberative norms that the process ascribed to were not adopted. However, explicit strategies of agents and their rationales were not explored. Another study showed that agents may act from distinct normative positions to shape legitimacy, using arguments to justify

environmental institutions, as well as to shape beliefs to make institutions more justified (Quack 2010). Although their rationales were not identified, agents were found to "use normative arguments…to substantiate their legitimacy claims towards specific audiences and publics and to distinguish their own claims positively from those of competitors (Quack 2010, p13)." Another study on change champions looked at the roles of individuals in Canadian water governance, but not specifically at their influence on legitimacy (Straith et al *in press*). This research found that one strategy employed by agents was to explicitly transform values that ground institutions by changing the dominant mental paradigm through continual emphasis of its logical inconsistencies. Thus, although many of its constitutive elements exist, assessing agents' strategies and their rationales presents a novel approach for understanding institutional change.

2.4. The Evolution of Water Governance in Quebec

Water is a latent political issue in Quebec and has been the topic of ongoing debate for several decades (Cumyn 2010). Institutions of water governance have evolved rapidly in response (Table 2). The Beauchamp Commission in 1999 incorporated extensive public input on water issues to produce a report on water in Quebec (Milot & Lepage 2010). Adopted in 2002, the Quebec Water Policy was designed to address many of the issues identified by the commission and complement existing government policies, programs and regulations (Baril et al 2006). The comprehensive reform to water governance articulated by the policy paired regulatory mechanisms with integrated watershed management based on voluntary collaboration in local watershed organizations (Quebec 2002). The Quebec Water Policy mandated the formation of watershed management organizations, which are the government's main mechanism to improve water governance and environmental conditions through the creation and implementation of a water master plan for each watershed (MDDEFP 2011).

Watershed organizations are voluntary participatory organizations that have no separate legislative provisions (Baril et al. 2006). Each organization is mandated to facilitate the development and implementation of a water master plan for their territory (Baril et al 2006). Plans are to be updated every five years but are not legally binding. Although voluntary, participation in watershed organizations is intended to equally represent elected officials, economic interests, and civil society, which include the public, environmental and other social

organizations (Quebec 2009). Watershed organizations must also rely on voluntary collaboration and implementation by governments, as well as non-state stakeholders.

Watershed organizations rely on the Quebec government for much of their funding and resources. Operational funding is provided to each watershed organization by the Quebec government and provides limited staff and resources for watershed organizations to operate (Milot & Lepage 2010). In addition, the regroupement des organisations de bassin versant du Quebec (ROBVQ) is a private, non-profit organization funded by the Ministry of Environment (MDDELCC) to support watershed organizations and act as an intermediary between the watershed organizations and MDDELCC (Brun & Lasserre 2006).

In 2009, the Quebec government reinforced the policy and its implementation with several changes. The number of watershed organizations was increased to 40, and their territories were expanded to cover all of southern Quebec (MDDEFP 2011). Quebec also adopted the *Act to affirm the collective nature of water resources and provide for increased water resource protection*, which legally recognizes water as a common resource for the people of Quebec and identifies the Province of Quebec as the guardian of water in the public interest via the Ministry of Environment (Cumyn 2009). Importantly, the act defines the responsibilities of the Government of Quebec as steward of the resource on behalf of its citizens, acknowledging water as a *res communis* (common resource), accessible to and usable by all citizens in the common interests of present and future generations (Quebec 2009; Cumyn 2009). The act also indicated the need for support from other actors. Article 15 states that government bodies at different levels must "take into consideration" the water master plans, although they have no legal requirement to implement them (Quebec 2009).

Collaborative water governance in Quebec has evolved rapidly and has not been extensively studied in its current form (Milot & Lepage 2010). Given the evolving nature of water governance in Quebec, the roles of agency and legitimacy are of key concern. The legitimacy of collaborative governance has been examined earlier in its evolution, but not recently (Milot & Lepage 2010). Further, watershed organizations address a diverse range of issues and interests within their territories and the adaptability of watershed organizations is viewed as one of their strengths (Milot & Lepage 2010). Organization staff employ a range of approaches to engaging local stakeholders and carrying out their mandate (Milot & Lepage

2010). As such, collaborative water governance in Quebec presents an ideal context to understand how agents affect institutional change.

This research has further salience and potential implications to improving the policy. A recent report from the Auditor General of Quebec examined water governance in Quebec and its implementation of the Quebec Water Policy (Vérificateur général du Québec 2013). The report expressed concerns that plans developed by watershed organizations are not always taken into account in regional land use plans, and the Ministry of Environment does not know the extent to which watershed plans have been implemented. Watershed organizations and collaborative water governance in Quebec has existed for more than 10 years, and watershed organizations completed their plans in 2014 (ROBVQ 2014a). These plans have yet to be implemented to a significant degree. The Quebec model provides a highly relevant example to understand the role of agency in shaping collaborative water governance and its legitimacy.

Table 4. Evolution of water governance in Quebec: significant policies and government actions.

Year	Event	Outcome
1999	Beauchamp Commission	Provincial recommendations on water governance
2002	Adoption of Quebec Water Policy	Reform of water governance Creation of watershed organizations
2009	Revision of watershed territories	Creation of 7 new watershed organizations and expansion of other watershed organizations' territories to cover all southern Quebec Increased funding for watershed organizations
2009	Act to affirm the collective nature of water resources and provide for increased water resource protection	Recognition of water as a *res communis* Government entities must "take into consideration" water master plans
2013	Audit of water governance and implementation of the Quebec Water Policy	Auditor General Report on Water Governance with recommendations for MAMOT[1] and MDDELCC[2]

[1]Ministry of Municipal Affairs and Land Occupancy
[2]Ministry of Sustainable Development, Environment, and the Fight Against Climate Change

3. Methods

An exploratory approach was used to understand the strategies key agents used to shape collaborative watershed governance processes, as well their rationales, especially in relation to legitimacy. These strategies and their rationales were identified for six different watershed

organizations in Quebec. Watershed organizations were selected to include a diversity of issues, geographic sizes, and durations of existence, within practical limitations (Leach 2006; Milot & Lepage 2010; Schmidt & Morrison 2012). These watershed organizations were the Agence de bassin versant des 7 (ABV des 7) in the Gatineau watershed, Société de conservation et d'aménagement du bassin de la rivière Chateauguay (SCABRIC) in the Chateauguay watershed, and Conseil des bassins versants des Mille-Îles (COBAMIL) in the rivière Mille-Îles region. The three additional watershed organizations were the Organisme des bassins versants de la Capitale (OBV de la Capitale) in the region of Quebec City, the Conseil du bassin versant de la région de Vaudreuil-Soulanges (COBAVER-VS) in the Vaudreuil-Soulanges region, and the Conseil de gouvernance de l'eau des bassins versants de la rivière Saint-François (COGESAF) in the Saint-François river watershed (see table 2). Given this sampling approach, the strategies and their rationales may not be representative of or generalizable to all watershed organizations in Quebec. Rather, they are illustrative, aimed at identifying the means and rationales by which agents affect institutional change as well as any barriers they may encounter.

Multiple sources of evidence were used to improve construct validity, including document review, participant observation and information gathered from in person, semi-structured interviews with 13 watershed organization staff and key experts that possessed extensive experience and knowledge of their watershed organizations, their history, and their evolution (Denzin & Lincoln 2011; Yin 2003). Multiple agents were interviewed at each organization where possible. These interviewees were identified based on their current or past roles as paid staff of watershed organizations, or as having been influential in shaping and designing the watershed organization itself. Snowball sampling methods were used to identify key individuals beyond paid organization staff. This method involves identifying subsequent individuals from previous interviews, beginning by identifying initial interviewees using selection criteria such as staff of watershed organizations (Reed et al 2009).

Interviews explored participant experiences and actions related to shaping and improving their watershed organizations and their legitimacy. Themes included the institutional structure, mandate, roles and responsibilities, appropriate function, participation, and organization history. Interviews were tape-recorded, transcribed and responses were coded for strategies and their rationales that emerged from the data. Responses were identified and analyzed using directed content analysis, the preferred method when sufficient theoretical frameworks are available

(Hsieh & Shannon 2005). Discursive construction was used to understand and present agents'
strategies and their rationales in relation to shaping the legitimacy of collaborative governance in
Quebec (Holstein & Gubrium 2011).

Table 5. Watershed organizations and their characteristics

	ABV des 7	SCABRIC	COBAMIL	COBAVER-VS	COGESAF	OBV de la Capitale
Area (km^2)	40254	2543	1053	8132	10228	711
Population	320 000	297 000	435 401	100 666	348 800	517 921
Population density (/km^2)	8	117	414	124	34	728
Municipalities	50	39	25	19	95	11
RMCs	9	5	4	1	12	1
Age	2004	2002 (1993)*	2010	2009	2003	2002
Interviewees	2	3	4	2	1	1

Sources: (ABV des 7 2014; Audet et al. 2014; Brodeur et al. 2012; COBAMIL 2013;
COBAVER-VS 2014; COGESAF 2014)
*Note: Watershed organization existed previous to Quebec Water Policy

4. Results

In this section, strategies that interviewees used to shape collaborative water governance
in Quebec are described and their motivating rationales are presented. These interviewees were
acutely aware of local stakeholder perceptions of legitimacy, recognizing that their
organizations' success depended on stakeholders perceiving the collaborative governance
process as legitimate. A central concern of organization staff was that the process be justified in
the eyes of local stakeholders and supported in practice. As one coordinator noted, one of the
most important measures of their organization's success was whether stakeholders within the
watershed perceived that the organization was doing well. Strategies used by these individuals
and their rationales are divided into two categories: social-relational and ideational.

4.1. Social-relational Strategies

Social-relational strategies, in particular the ways agents influenced how others interacted and behaved, were a primary mode of agency. This was unsurprising since watershed organizations are tasked with a social-relational mission, to facilitate the development and implementation of a watershed master plan, as per their official mandate (Quebec 2002). In particular, the task of watershed organization staff is to enable local stakeholders to develop and implement their watershed master plan, rather than to create and implement it themselves.

Initiating Formal Processes

Effectively, the mandate of watershed organizations is to create and motivate new networks of individuals and groups, or mobilize existing networks in new ways. Unsurprisingly, in all instances studied, the creation of a watershed organization entailed the establishment of new social relations among organization staff, their boards of administrators, and stakeholders. In almost all instances, staff and key individuals such as the presidents of watershed organizations brought together members of their administrative boards, technical committees, and key stakeholders, convincing them to become involved. Some organization staff created numerous local committees in their watersheds, while others initiated one or a few groups focusing on local or regional water issues.

However, the degree to which organization staff engaged stakeholders in formal processes varied greatly. One younger organization was exceptional in that its technical committee was not meeting in person due to time constraints and it had created no other committees or regular venues to engage stakeholders. In this exception, there was minimal stakeholder engagement in or co-creation of collaborative water governance networks.

In contrast, interviewees from all other organizations described conducting regular meetings and other forum. For example, the other organization of the same age faced similar time constraints, but conducted regular meetings of those committees, as well as several rounds of public consultations to gather input on their plan. As a result, recognition of and participation in the events of the organization were much less of a concern for its staff. Moreover, staff of this second organization planned to further expand their engagement to include 6 local committees to involve stakeholders through issue- and sector-specific groups. Likewise, the president of one older organization had divided their territory into 24 sub-watersheds creating an informal

committee of local stakeholders in each, while the other organizations described processes that fell within the range of these two latter examples. Thus, it appears that above a certain minimal threshold defined by organizations' mandates, initiating and maintaining formal arrangements may vary substantially without being detrimental to the process.

Using Existing Networks

Furthermore, watershed organizations were not created in the absence of, or isolated from other institutions, organizations, groups or individuals. For example, many watershed organizations originated from pre-existing environmental organizations, or were institutional experiments previously set up or supported by the Quebec government. Given their diverse histories, contexts, issues and stakeholders, many agents used more nuanced and targeted strategies to engage stakeholders, influence their interactions, and shape their behaviour.

One such strategy was to use existing networks, which enabled watershed organization staff to better engage stakeholders on relevant issues, but also to influence a greater number of individuals than would otherwise be possible. Different strategies were appropriate to include different actors or interest groups such as those that were more diffuse. For diffuse groups, watershed organization staff successfully gained the support and commitment of individuals by leveraging existing institutions.

In agricultural regions, staff contacted agricultural producers unions (UPA), which were better able to communicate and involve farmers using their existing networks. However, this task required that staff identify or establish common goals and values through strategic interpersonal connections and diplomacy. For example, in one watershed, establishing a fit with existing agricultural networks required watershed organization staff to inform UPA members of their process and convince them of its importance. Initially, UPA representatives openly opposed a Green Corridors project advocated for by watershed organization staff. However, these staff contacted individuals within the UPA that were most likely to be receptive to their ideas and met with them personally to convince them. Those individuals attended a watershed organization meeting, were persuaded of the benefits of UPA involvement, and subsequently advocated for their union to support and become involved in the project. The UPA has since begun participating in watershed organization initiatives and has involved many farmers.

This example demonstrates two things. First, the members of the UPA who were initially approached internalized the beliefs and norms of the collaborative water governance process, and subsequently transmitted them to many other farmers. This process reflected the concept of a norm cascade, whereby several norm pioneers – watershed organization staff in this instance – spread a set of norms using education and persuasion, following which these strategies more easily spread within UPA. Leveraging existing institutions may be an effective strategy for establishing shared norms and practices. The strategy of reaching farmers through agricultural unions has been taken up by three of the four organizations studied in which agriculture is a major issue. Staff in another of these watersheds expressed how existing institutions enabled the process: "They are quite well networked, so going through those networks works to reach them, especially if we work through some to invite others." Second, this example illustrates how past experiences and assumptions can inhibit or enable legitimation of institutions. UPA support had to be initiated by first correcting false assumptions from previous experience. Watershed organization staff needed to clarify that the green corridors project was voluntary and minimally intrusive to agricultural practices, contrary to what UPA members had assumed.

Tailor Collaborative Process to Context

A different social-relational strategy described by interviewees was to tailor the meetings and activities of watershed organizations to local issues, context, and the needs of relevant groups and individuals. Staff from five of the six watershed organizations reported conducting multiple issue-, sector- or area-specific meetings to overcome geographical distances, account for local identities and contexts, and to ensure that issues were relevant to participants. Strategies included having meeting locations throughout a territory, creating multiple local committees, or both. These strategies reduced travel time and costs, while increasing relevance for participants, making the process accessible to a greater diversity and number of individuals. Ensuring groups were smaller and issue-specific addressed a major criticism of deliberative forums whereby 'inclusion of all' makes deliberation unrealistic and discussions intractable (Parkinson 2003). One coordinator noted the success of these smaller meetings: "People were talking more and really arguing sometimes. It was smaller, so they were more interested. When you are 30 around the table you can avoid participating, but when it's smaller, they have to talk and give their

opinions and be involved." This type of strategy improved inclusion and participation of specific interest groups and actors, while addressing challenges related to diverse contexts and issues.

Given the existing institutional context, watershed organizations needed to engage and work with certain stakeholders more than others. For instance, all watershed organization staff prioritized engaging and gaining the commitments of both municipal and regional governments. Staff of each organization studied prioritized meeting personally with every mayor and representative regional county municipality (RMC) in their territory to inform them of their organization's purpose and gain support for their plans. This was perceived to be necessary because municipalities and RMCs hold a majority of responsibilities for managing water; their inclusion was vital for the effectiveness and legitimacy of the process. One coordinator acquired commitments from municipalities in their territory to implement actions in their plan because they met all mayors in their territory to discuss the plan and convince them to make commitments. In contrast, one organization had not yet met with all municipalities or the only RMC in their territory at the time of interviews. However, notwithstanding agents' efforts, in almost all watersheds, interviewees mentioned exceptions of municipalities or RMCs that refused to collaborate with their watershed organization or recognize their plan. In many instances, organization staff were able to convince these individuals after some time, but others resisted, often for interpersonal reasons or as a result of misconceptions of watershed organizations. Thus, the process may have difficulty ensuring even minimal action on the environment without support.

While most challenges related to inclusion and inadequate participation were resolved within local watershed organizations, a majority of interviewees shared concerns about whether a voluntary collaborative approach was appropriate for all contexts and issues. Although engagement of some sectors was possible, others such as industry were largely absent despite efforts to engage that sector including contacting business associations and in person meetings. All interviewees expressed that participation of industry remained a challenge because industries had little incentive to participate. In addition, inclusion of citizens on a large scale remains unrealistic given organization capacities and resources. These results indicate that collaborative governance in its current configuration may have inherent limitations depending on the sector and issue. This research supports findings that local agency may be a large determinant of success, but also emphasizes the need to identify what issues and contexts collaborative

governance is most appropriate for (McLaughlin 1990). Furthermore, limits to inclusion emphasize the importance of complementing voluntary initiatives with measures such as regulation and incentives to provide an institutional environment that enables agents to optimize the legitimacy of collaborative governance.

4.2. Ideational Strategies

While social-relational changes were explicit in watershed organizations' mandates, and accordingly social-relational strategies were widely employed by interviewees, ideational changes were much more implicit. Even so, organization staff and key agents in watershed organizations often cited ideational changes and corresponding strategies as integral to and perhaps constituting their primary role. These strategies related to education, collective narratives and demonstration through implementation.

Education and Awareness Initiatives

If not their primary and official role, education and building awareness were at least viewed as logically proceeding behaviour change and thus required for organizations to fulfill their mandates. One staff member articulated this rationale: "If you want to work with people, you have to first inform them because if they don't know what you want to do they won't want to work with you. And after that, you have to involve them more and more in decisions. Gradually, so at the end they will agree to take action." The president of that organization further explained their organization's rationale behind education: "We have to inform people. When they're informed, they see the necessity to do it this way. It takes a lot of convincing and information." As such, all watershed organization staff interpreted education and informing citizens as part of their primary mandate. One coordinator affirmed, "Our job is to wake up people and make them realize they have to change their behaviour, their thinking."

According to this rationale, all interviewees reported using some strategy to inform and educate stakeholders and the public. For example, staff at several different organizations described public awareness campaigns to educate specific groups or the general public on issues such as ways to prevent spread of invasive species or to reduce domestic pollution of waterways. In addition, almost all watershed organizations developed educational resources, such as online mapping tools to better communicate water issues and inform the public. While staff of younger

organizations cited other priorities such as establishing their organizations and producing their first watershed plans, interviewees in older organizations recognized the importance of these larger means of reaching and engaging diverse citizens to ensure they established and maintained broad public support. For instance, staff of the oldest organization had organized community engagement events with more than 100 participants, while another organization had engaged diverse stakeholders through academic partnerships, including a regular international conference. Meanwhile, staff of one younger organization had begun small-scale engagement at local markets and other community venues, although staff of the younger organizations reported no other such initiatives.

Interviewees also prioritized water education in partnership with schools and other formal institutions as a way of reaching many more people. This was conducted in different ways, by different organizations. The organization with the largest territory was perhaps the most active, and had provided education training on water to the regional school board. Its staff were also delivering water education workshops in several schools. Another was coordinating the regional Adopt-A-River program, engaging students in experiential water education. A third was more involved in higher education, while a fourth collaborated closely with a non-profit water education centre. Staff in the remaining two organizations expressed no interaction on water education, although they agreed on its importance. The importance organization staff placed on education related to water issues is likely shared across Quebec. This claim is supported by the fact that at least one staff member in more than 25% of watershed organizations have received formal training to provide water education (ROBVQ 2014b). However, despite the importance watershed organization staff placed on education, they possessed limited capacities and no formal mandate to educate the public or conduct public outreach.

Implementing Projects

Another important strategy was to implement projects. Lack of implementation was a primary concern of all interviewees, although individual rationales for implementation and its form varied widely. Hence, all six watershed organizations studied implemented specific projects, a practice that was common for watershed organizations across Quebec (ROBVQ 2014a). Watershed organizations often applied for grants or other funding sources that enabled

them to implement projects *even though implementing projects was beyond their official mandate*.

The types of projects and individual rationales behind their implementation were diverse. At a minimum, all watershed organization staff initiated and delivered programs to monitor water quality and gather the data necessary to inform decision-making related to their plans. Their rationale was first that, since data on water quality often did not exist, they needed to produce data to better understand the issues in their territory and to inform decisions. A second rationale, voiced by most interviewees, was that providing such a service also helped them demonstrate the utility of their organizations, granting them recognition thus improving their legitimacy. One staff member from a younger organization articulated this rationale: "We tried to find a way to be known as a capable identity, to demonstrate our competencies to build credibility." A different staff member from that same organization, which had not yet begun to implement their plan, expressed concern that the effectiveness of the process relied on voluntary implementation by stakeholders: "What we're going to see is whether they're going to take action. They agree to take part in our process, but I'm still sceptical about what's going to happen." In fact, a majority of organization staff interviewed expressed concern that without implementing actions to demonstrate that they achieve substantive goals and improve environmental conditions, the process would lack legitimacy.

Nevertheless, this rationale for implementation, to gain legitimacy by demonstrating that water governance was able to achieve meaningful impacts, was more important to some interviewees than others. In particular, two organizations with larger territories – those that originated as environmental organizations – went much farther than others, conducting multiple projects aimed at directly improving water quality and environmental conditions rather than simply understanding water issues in their territories. Staff and volunteers physically implemented these projects, such as planting trees along riparian areas to prevent erosion and conducting experiments to control invasive species. However, the directors of both organizations expressed that with limited funding, resources and numbers of employees, their efforts were limited in scale and impact.

Between these two extremes, interviewees from all six organizations had developed and implemented projects in partnership with existing interest groups and organizations to varying degrees. Since they possessed limited funding and other resources, but also viewed establishing

legitimacy as important, interviewees attempted to demonstrate what could be done and how by partnering on these small projects to share resources and expertise. For example, one watershed organization is coordinating an ongoing revitalization project in a community creek with numerous government and NGO partners, while several other organizations partnered with agricultural unions on projects funded by the Ministry of Agriculture to educate and engage farmers in mitigating agricultural impacts on water. These partnerships enabled watershed organization staff to reach larger numbers of individuals, and increase their impact despite the constraints of limited funding and resources.

Further, interviewees hoped that demonstrating actions would encourage others to do the same. For example, one staff member advocated for demonstrating the effectiveness of the collaborative process on the belief that it would lead to increased adoption and implementation: "I think the best thing to do is start working with those who agree, and hope that it will spread. It's the approach of showing the good example." Demonstrating effective actions was especially important for younger organizations. One interviewee from one such organization expressed that having an achievable plan and demonstrating progress towards its goals was important when organizations are attempting to establish themselves: "If they [stakeholders] see that they can do simple actions, they will be more willing, and at the end of the next 5 years we have to be able to show the result if we want people to continue to work with us." The interviewee expressed concern that if actions were too difficult to achieve, the process might be perceived as a failure, which would be highly damaging to its legitimacy.

Moreover, a further motivation for using this partnership approach was to educate stakeholders and the wider public by actively engaging them in activities and demonstrating what actions were possible. Watershed organization staff were concerned that citizens, including key stakeholders, did not sufficiently understand human impact and reliance on water. These concerns, voiced in different ways by all interviewees, were that there existed a lack of sufficient public understanding and prioritization of water issues. For example, one organization president expressed, "Rivers are the background of houses. They [citizens] want the place, but don't want the inconvenience that goes with it." Hence, connecting people to water through personal experiences was important. One interviewee articulated this position: "What do you protect? Something you like. Something you're emotionally linked to." Accordingly, interviewees from three organizations used experiential means to change stakeholder perceptions of and connection

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to water. As this strategy illustrates, actions were often motivated by multiple rationales and desired outcomes such as to demonstrate substantive results, demonstrate potential actions, and change stakeholders' perceptions of and relationships to water.

Creating Collective Narratives

A final ideational strategy was to use narratives to maintain and disseminate common ideas. Whether organization staff were able to establish a common narrative and how they used those narratives strongly influenced whether they were able to actively shape collaborative water governance and improve its legitimacy. The use of narratives enabled some agents to more effectively establish and transmit coherent sets of ideas. Furthermore, narratives helped interviewees articulate and define their meta-strategy, the set of strategies they employed.

The influence and effectiveness of a coherent narrative was most apparent among the interviewees from one younger organization. Its staff recognized the importance of this strategy, attributing their success to maintaining a coherent and consistent narrative: "From the beginning all employees have been included in all decisions. All the philosophy, the vision, we're all part of it, always." This common narrative that the organization maintained enabled ideas to be shared and transmitted more effectively: "[I do think that's part of our success because] wherever we go we all have the same speech, we all say the same thing, we work in the same way, we follow the same path." The administrative council of that watershed organization had come to adopt and support the collaborative approach through such a process: "At first we were not sure they would agree because they did not see the watershed approach this way. For them, we were doing an action plan and then we maybe would put it in place ourselves. We had to bring this idea that people from the different cities would want to work with us." The interviewee continued, "They gradually accepted this vision and now they believe it as much as I do." Since their vision was clear, transparent and readily shared, the organization and its staff were given a lot of influence and made substantial progress in gaining the recognition and support of stakeholders. One important reason for this success is that the organization hired someone with skills in communication and community engagement for this purpose.

The narrative this organization employed reflected the ideals of voluntary collaboration, implementation by stakeholders, and collective responsibility espoused by the Quebec Water Policy and the province-wide organization of watershed organizations, ROBVQ (Quebec 2002).

Its staff members maintained that funding to implement plans should be limited to encourage stakeholders to take responsibility. One interviewee responsible for engaging stakeholders expressed their concern that watershed organizations should not do too much for local stakeholders or provide them complete funding: "Stakeholders will rely too much on us to act. They will wait for us to do the job." The interviewee continued, "Our job is not to solve their problems. We don't want them to be dependent, we want them to act."

Although a similar position was held by interviewees in other organizations, their narratives ranged in coherence and effectiveness. Despite being an effective strategy, narratives at times conflicted with existing beliefs or values. Resistance to a narrative was evident in a second organization. Similar to the first, staff carefully maintained that watershed organizations' purpose was water governance as opposed to management, emphasizing that watershed organizations' roles were to facilitate stakeholder engagement and implementation, rather than to implement plans themselves. This controversy – whether watershed organizations are supposed to implement their plans or leave implementation to stakeholders – was described as challenging by all interviewees, whether they used one approach or the other. This particular organization's president championed the narrative of water governance within the watershed, but also advocated that the watershed organizations' proper role be recognized and supported by the Quebec government. However, despite strong leadership to ensure that this narrative was clearly transmitted and reflected in the watershed organization's process, a legal challenge inhibited the organization's ability to act. In this instance, resistance to the ideas or approach of the organization remained a barrier.

Moreover, narratives appeared to be organic, created and evolving over time. For instance, staff from the oldest watershed organization also emphasized the challenges of establishing shared beliefs and practices, describing how they were developed over time through maintenance of common narratives. The watershed concept, novel when this older organization was created, entailed new ways of doing things based on a different way of understanding human impacts on the environment. One coordinator explained this challenge: "It was not really easy for people in the municipalities to talk about the watershed. It was a new concept. Many knew that the actions they do affect the quality of the water downstream, but it was not a matter of all the territory." Key individuals in the organization had to navigate this challenge; they addressed the issue by educating citizens on the watershed concept through diverse strategies such as

environmental education programs, in-person meetings, bus trips, public consultations and other public events. In this way, key individuals related to the organization created a narrative around the concept of collaborative watershed governance, but also enabled its dissemination.

In contrast to these first three examples, interviewees in the other three watersheds used narratives implicitly or not at all. However, implicit or unarticulated narratives were not always detrimental. Staff of the fourth watershed organization did not articulate a clear narrative, but collective understanding did not appear to be an issue. Meanwhile, staff from the fifth organization implicitly articulated the narrative that their organization was attempting to address complex environmental problems, requiring societal change on a much larger scale than watershed organizations were capable. From this perspective, watershed organizations had limited impact, on either society or the issues they were valiantly attempting to address: "When we say we are managing water, it's not the reality. It's far from preserving water quality. We are just showing to the people that there are some good actions that we can do." This rationale motivated their approach, based on both education and implementation on as large a scale as possible. In addition, the two interviewees from that organization recognized that there existed absolute limits to their capacities to educate and change beliefs among citizens. They believed the scale of environmental problems was beyond their capacities to address. Hence, regulation and implementation were essential. This was reflected in their focus on implementing projects and advocacy for regulation to limit human impacts on water, in addition to education and public outreach such as a campaign to improve awareness of invasive species.

Nonetheless, the successful use of narrative by most organizations contrasts starkly with the absence of this strategy in the last watershed organization. In this younger organization, a common narrative and set of beliefs was not evident, such that individuals involved in this organization were unable to agree on their mandate, even among a core group of stakeholders. For instance, interviewees noted that the organization's administrative council was not yet clear on the role and mandate of the organization. This absence of a clear narrative was accompanied by limited stakeholder knowledge and recognition of the organization, which severely impeded the establishment and transmission of shared beliefs and practices.

5. Discussion and Conclusions

This research identified social-relational and ideational strategies agents used to establish and shape watershed organizations and their legitimacy. Beyond coordinating initiatives related to their official mandate, several social-relational strategies agents used to influence the ways key stakeholders as well as their wider communities interacted were identified. These strategies included using existing networks and adapting collaborative processes to local issues and contexts. In addition, agents used ideational strategies such as education, implementation of substantive projects, and collective narratives to influence beliefs according to which collaborative governance was justified. These results demonstrate how agents employ a combination of strategies, often coherently embedded in a common narrative. Furthermore, most strategies influenced both stakeholders' beliefs as well as their behaviours. For example, implementation of projects in partnership with other organizations both demonstrated effective approaches (ideational) and established new ways of working together (social-relational). As such, strategies often shaped legitimacy of institutions by both changing beliefs according to which practices were justified and encouraging behaviours that demonstrated consent to those practices. This research thus provides insight into how agents relate to and influence institutions using the concept of legitimacy.

This research also provides insight into how agents adapt and improve institutions to make them work in diverse contexts. Although agents' overarching rationales were to affect legitimacy via the ideas by which collaborative water governance was justified and the behaviours by which stakeholders granted consent, their rationales often accounted for specific contexts, issues and people within their watershed territories. In this way, despite inherent limits to institutional design, agents were instrumental in adjusting and improving the legitimacy and effectiveness of collaborative water governance in situ. Understanding how institutional change may be actively pursued is important because, while numerous experiments in environmental governance are being attempted, their failure may often have severe or even irreversible environmental impacts. Given this reality, the roles agents play in adjusting and improving institutions in situ may be critical to the success of collective environmental solutions.

However, agency varied substantially depending on the individuals present and their motivations. Some agents, more than others, used diverse strategies, used them more adeptly, and more explicitly and actively shaped legitimacy. Furthermore, agents' rationales were often

developed in relation to larger structural and societal factors. Identifying agents' strategies and their rationales thus not only illuminated the need to foster improved agency, but also identified the structural barriers and deficits that agents at the watershed level may be unable to address. For example, watershed organization staff possess limited capacities and resources to implement projects that have substantial impacts on water quality (ROBVQ 2014a). In addition, as articulated in a recent Quebec Auditor General's report, the extent to which plans are implemented is unknown, although concrete actions are needed (Vérificateur général du Québec 2013). Sustained projects are required to enable ongoing implementation, as well as engagement of citizens beyond small-scale individual projects. This lack is compounded at the Quebec level, since the effectiveness of collaborative water governance remains limited in its scale and impact by factors such as funding for implementation of watershed plans, as well as integration of those plans beyond the watershed scale (Vérificateur général du Québec 2013). This example illustrates the importance of enabling agents by providing them the tools and support they need to adapt and improve institutions in situ.

To this end, the Quebec government possesses responsibilities related to its unique role and mandate to protect the common good. The *Act to affirm the collective nature of water resources and provide for increased water resource protection* legally recognizes water as a common resource for the people and identifies the Government of Quebec as the guardian of water in the public interest via the ministry of environment (Cumyn 2009). Importantly, the act defines the responsibilities of the Government of Quebec as steward of the resource on behalf of its citizens, acknowledging water as a common resource, accessible to and usable by all citizens in the common interests of present and future generations (Quebec 2009; Cumyn 2009). As such, structural changes at the provincial level have the most potential to address barriers, as well as support and complement the work of agents acting at the watershed level.

While this research identified social-relational and ideational strategies used by agents at the organizational level to shape legitimacy, several areas of research warrant further study. First, this research focused on agency at the watershed level as most relevant to understanding strategies for adapting collaborative water governance institutions to their local contexts, agency affects institutional change at all levels. However, it is unclear whether the strategies identified are translatable to other contexts. Further research is needed to determine what types of strategies are used at other levels of action and decision-making. Second, identifying strategies agents used

to affect the legitimacy of collaborative governance as well as their rationales provided a method to empirically understand institutional change that explicitly addressed relationship between agency and institutions. However, agency is only one factor, albeit a critical endogenous one, that affects legitimacy and thus drives institutional change. How agents influence other phenomena endogenous to society, such as social and political movements or education to affect legitimacy and institutional change warrants further attention. Research might also seek to understand how agents react to and frame exogenous factors such as crises and resource constraints in leveraging these social phenomena to legitimate institutional change. In these ways, it is hoped that improved understanding of how agents affect legitimacy and improve institutions in situ may better equip humanity with the collective strategies needed to govern the human-nature relationship and address its environmental challenges.

Acknowledgements

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Chapter 5: Recommendations and Conclusions

1. Introduction

This final chapter summarizes this thesis and its findings, and articulates their significance. The purpose of this research was to understand collaborative water governance in Quebec through the lens of legitimacy and assess what has been done to improve collaborative governance. A further goal of this research was to provide recommendations to improve the implementation of the Quebec Water Policy and collaborative water governance in the individual watersheds studied, but also throughout the rest of Quebec. Accordingly, Chapters 3 and 4 are summarized, while important issues identified in this research and related to the legitimacy of collaborative water governance in Quebec are indicated using numbers in square brackets. Next, two sets of recommendations that address these highlighted issues are proposed and clearly linked to the results that informed them. The first set of recommendations is intended for policy-makers, including those at the Quebec Ministry of Environment (MDDLECC). The second set of recommendations is specific to the watershed management organizations and is most relevant to local and regional stakeholders, as well as watershed organization staff. Finally, the original contributions and limitations of this research are described, and future areas of research are proposed.

2. Summary

This thesis evaluated collaborative water governance in Quebec, using the lens of legitimacy. Chapter 3 used a sociological interpretation of legitimacy based on Beetham's dimensions (legality, justification and consent) to understand collaborative water governance and its challenges, according to the perspectives of local stakeholders, organization staff and policy-makers. Analysis of collaborative governance through the lens of legitimacy enabled effective identification of the sources and deficits of its legitimacy, demonstrating the importance of assessing legitimacy from multiple levels and perspectives.

First, the inability of other local actors to enforce regulations and failure of provincial ministries to enforce regulations or implement goals stated in the Quebec Water Policy detracted from the legitimacy of the collaborative process even though these laws and regulations were not the jurisdiction of watershed organizations. Hence, it is important that watershed organizations

and the appropriate level of governments - municipal, regional (RMC) and Quebec government ministries – work together to ensure there exist adequate procedures and funding to monitor and to enforce regulations [1].

Within watersheds, organization staff balanced distinct normative claims regarding the legitimate source of decisions such that the combination of these sources was the most legitimate, although in some instances the scientific basis of decisions was questioned. It is important to verify with stakeholders that information is correct and relevant, as well as to balance sources of information [2]. At the provincial level, rather than top-down decision-making, decisions were intended to incorporate local knowledge, practical experience, and scientific expertise to complement and support local collaborative institutions. This change has not occurred within the ministry of environment. First, formal agreements may be needed for data sharing with all stakeholders, in addition to other ministries [3]. Second, the adoption and dissemination of the norms of collaborative water governance embedded in the Quebec Water Policy is needed to enable watershed organizations to achieve their intended purposes [4].

Since collaborative governance may not be as appropriate for addressing all issues and engaging all sectors or groups in the same way, this research emphasizes the need to determine for what contexts, groups and issues collaborative governance is most and least effective [5]. Furthermore, how the voluntary collaborative process and existing democratic institutions can fit best together remains largely unresolved. As such, policies, laws and regulations need to be continually adjusted to improve the fit between representative and collaborative institutions [6].

Although implementation was beyond their official mandate, effective implementation of projects with tangible environmental impacts was a prime contributor to the legitimacy of collaborative water governance at the watershed level, but also at the Quebec level. [7] However, even though implementation of projects by watershed organizations lent the process legitimacy, in its present form the scale and substantive impact of collaborative water governance in Quebec remain limited. Whether voluntary implementation will be effective and have measurable impacts on environmental conditions remains uncertain, representing the policy's largest potential deficit in legitimacy. This concern reflects the need to implement actions rather than merely produce plans, and will require provincial funding and support to address the scale and diversity of water issues in Quebec watersheds [8]. However, even with limited capacities to affect substantive environmental improvements, collaborative water governance performed

functions and addressed social needs complementary to the roles of existing actors, especially governments. This role granted watershed organizations legitimacy in meeting at least some common interests.

In relation to consent, some expressed that voluntary commitment to implementing water master plans may need to be done publicly to better demonstrate key actors' consent [9]. One potential mechanism for signifying consent is commitment by signing a river contract, as was the original intention in the Quebec Water Policy (Quebec 2002). Consent was varied and lacking from both citizens at large as well as from the Quebec government. Lack of more widespread participation reflects limited knowledge and support of collaborative water governance in Quebec, implying the need for both increased education and visibility of watershed organizations; public education and awareness of collaborative water governance, as well as water issues is lacking [10]. Furthermore, government consent in recent years is lacking in numerous ways, including expertise and other enabling resources, recognition of plans, and funding [11]. The Quebec government can clearly demonstrate its consent to collaborative water governance by providing funding, resources, and expertise; recognizing plans and integrating them at the Quebec level; as well as continued improvement of institutional tools that support collaborative water governance, such as policies, laws and regulations. In this way, Chapter 3 demonstrated that understanding the sources and deficits of legitimacy in context provides a direction from which to progress in pursuing the enhanced legitimacy and effectiveness of constantly evolving governance institutions.

In Chapter 4, which built upon the understanding of collaborative governance developed in Chapter 3, social-relational and ideational strategies agents used to establish and shape watershed organizations and their legitimacy were identified. Organization staff and other key agents engaged stakeholders in formal processes to different extents, although, beyond fulfilling their mandates, formal arrangements may vary substantially without being detrimental to the process. One common strategy of agents was to use existing networks, which enabled them to better engage stakeholders and influence a greater number of individuals [12]. Leveraging existing expertise and contacts rather than having to create networks anew can save organizations time and resources, while enabling them to reach larger audiences.

Another strategy was to adapt the activities of their organizations to local issues, context, and the needs of relevant groups and individuals. For example, organization staff created smaller

issue-, sector-, and region-specific committees to increase inclusion and participation [13]. Where appropriate, local committees or sub-committees can help watershed organizations to address local issues and ensure participation is relevant to stakeholders. In particular, regularly engaging municipal mayors and RMC representatives through in person meetings, but also RMC representation on administrative boards was especially effective [14]. It is also important to determine for what contexts and issues collaborative governance is best suited so that, where appropriate, regulation and other institutional mechanisms can be developed or modified to support the collaborative process [15]. For example, formal agreements are needed between MDDELCC and other ministries on how watershed organizations should work with government stakeholders such as RMCs and municipalities.

An additional strategy was to inform and educate stakeholders and the public, although education was approached through diverse ways by organizations [16]. Large community events, formal education partnerships with schools and organizations, and ongoing education and awareness campaigns to engage stakeholders as well as their larger communities within their territories were especially effective. Organization staff might also pursue formal education training in water education. Within Quebec, environmental education, and water education in particular, is prioritized, but not consistent or consistently supported. At the Quebec level, formal support for water and environmental education is lacking and could be supported through a partnership between MDDELCC and the Ministry of Education (MELS) [17].

All watershed organizations implemented projects in their territories. However, projects oriented as much towards enabling stakeholders by demonstrating possible techniques or strategies, and educating, in addition to achieving tangible results can enable organization to both affect stakeholder perceptions and behaviours while minimizing costs [18]. In addition, funding is needed to implement projects that have a measurable impact on water quality, often at scales much larger than a single watershed, which requires Quebec-wide programs to support collective priorities of watershed organizations in partnership with other ministries such as MAMOT and MAPAQ [19].

A final strategy, the use of narratives, enabled some agents to more effectively establish and transmit coherent sets of ideas. Collective narratives can be used to coherently connect key ideas related to an organization's vision and goals, as well as key strategies relate to its ends [20]. Collective narratives are relevant at the Quebec level as well, and might be used by

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MDDELCC and ROBVQ to ensure that the purpose and function of watershed organizations and collaborative governance are clearly communicated within MDDELCC, among all ministries, and to citizens in Quebec [21].

Organization staff were limited in their ability to affect institutional change and fully resolve deficits in legitimacy by the constraints of their context and larger institutional environment. There exist several outstanding deficits in legitimacy and potential areas for improvement, many of which must be dealt with at the provincial level. An important finding of Chapter 4 is that legitimacy can be and is changed through diverse strategies at the organizational level, but agency is often limited by both context and larger institutional factors that are beyond the control of actors at the organization level. Consent is required from all levels, but institutional solutions must also be matched with their appropriate context. Future research might explore the role of agency in shaping the fit and legitimacy of institutions of environmental governance at the scale of states.

3. Recommendations

The previous section summarized the results of this research and identified areas of potential improvement at both the watershed and the Quebec levels. Although agents at the watershed level have a large influence on watershed organizations and their legitimacy, Chapter 4 also argued that policy-makers and government decision-makers possess the unique roles and mandates to implement structural changes that remove barriers encountered by agents at the watershed level, directly support and enable those agents, and improve the complementarity between collaboration and existing institutions. As such, agents at the Quebec level can create institutional environments that enable agents at the organization level. Hence, two sets of recommendations based on the findings of this research are proposed to improve collaborative water governance and its legitimacy in Quebec. Numbers in square brackets indicate the results that were used to inform each recommendation. The first set of recommendations is intended for policy-makers at the Quebec level and provides insight on how Quebec can further create an institutional environment that will enable watershed organizations to fulfill their mandates and the goals of the Quebec Water Policy in partnership with the Quebec government. The second set of recommendations is intended for individuals and groups at the watershed level, including local citizens, stakeholders, boards of directors of watershed organizations, and watershed

organization staff. Issues and potential strategies identified in this research that inform each recommendation are indicated in square brackets.

3.1. Recommendations for Policy-Makers

The following recommendations provide insight on how the Quebec Government, its ministries, and other provincial actors can create an institutional environment to enable watershed organizations to fulfill their mandates and the goals of the Quebec Water Policy in partnership with the Quebec Government. They are intended for elected representatives including the Minister of Environment, public administration in various ministries including the ministry of environment (MDDELCC[1]), policy-makers, and provincial organizations such as the provincial body representing watershed organizations, ROBVQ[2]. It is recommended that the Government of Quebec and the MDDELCC take into consideration the following:

1. **Support Implementation of Water Master Plans [8, 11, 19]**

Provide funding and develop programs in collaboration with watershed organizations to enable stakeholders to implement watershed master plans. These programs might build on existing ones within MDDELCC, or be in partnership with other ministries such as agriculture (MAPAQ[3]), municipal affairs and land use (MAMOT[4]) and education (MELS[5]). The agricultural program, Prime Vert, provides an effective example for which the government provides partial funding, while local stakeholders are required to provide remaining funds (MAPAQ 2014).

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[1] Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (Ministry of Sustainable Development, the Environment and the Fight Against Climate Change)

[2] *Regroupement des Organismes de Bassins Versants du Quebec*

[3] Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (Ministry of Agriculture, Fisheries and Food)

[4] Ministère des Affaires municipales et de l'Occupation du territoire (Ministry of Municipal Affairs and Land Occupancy)

[5] Ministère de Education, du Loisir et du Sport (Ministry of Education, Leisure and Sport)

2. **Communicate Vision of Water Governance With Provincial Actors [3, 6]**

Ensure that the purpose and function of watershed organizations and collaborative governance are clearly communicated within MDDELCC, as well as with other ministries such as MAMOT, MELS, and public security and health (MSSS[6]). Further, a water governance strategy is needed to reaffirm the Quebec Government's commitment to the goals in the Quebec Water Policy, and also present a coherent, unified vision that government and citizens can understand and support.

3. **Practice Collaborative Water Governance [11]**

Adopt practices that reflect collaborative governance and support the Quebec Water Policy within and among ministries. Examples include integrated decision-making among ministries, ensuring decisions are informed by local knowledge of issues, and fostering collective responsibility by citizens, but also by all levels of governments. Although some information exists on water issues across Quebec, it is important to identify strategies to address these issues at the appropriate level (ROBVQ 2014; Vérificateur général du Québec 2013). While some formal agreements exist for sharing data among ministries, it is important to ensure that information is shared among watershed organizations and all relevant ministries to better inform plans and decision-making at both the watershed and provincial levels. One important step is to identify common issues related to water across Quebec in partnership with watershed organizations, and formulate integrated strategies to address them that involve multiple interest groups, levels of decision-making or ministries.

4. **Improve Fit and Complementarity of Watershed Organizations [1, 6]**

Support watershed organizations and implementation of watershed master plans through continued development and improvement of policies, laws, regulations and funding mechanisms. Policies and laws should continue to improve the fit and complementarity between decision-making by elected representatives and the voluntary collaborative process. Furthermore, the requirement that municipalities and RMCs[7] "take into account" water master plans may require stronger legal basis. Further, funding should complement and support existing regulation such as municipal land use planning and standards for water use and treatment.

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[6] Ministère de la Santé et des Services sociaux (Ministry of health and social services)
[7] Regional county municipality

5. **Identify Appropriate Contexts and Issues [5, 15]**

By identifying which issues, contexts and stakeholder groups for which collaborative governance may not be as appropriate, such as industries and First Nations, the Quebec Government can better determine how to support collaboration as well as identify alternative solutions. This will improve the legitimacy of collaborative governance by clarifying what issues collaboration is most capable and effective for addressing, but requires an integrated provincial strategy to address water issues that is still largely absent (Vérificateur général du Québec 2013).

6. **Develop a Provincial Water and Environmental Education Strategy [4, 10, 17, 21]**

Within Quebec, water and environmental education, are prioritized within watersheds, but are not consistently supported by MDDELCC or MELS. Education on water issues and awareness of collaborative water governance are lacking. Formal water and environmental education initiatives could be supported through a partnership between MDDELCC and MELS and delivered in partnership with watershed organizations. These initiatives might educate citizens not only on water issues, but also on collaborative water governance and the purpose of watershed organizations. Environmental education programs such as those delivered by the Centre d'Interpretation de l'Eau (Interpretive Centre for Water) provide a model for future initiatives.

3.2. Recommendations for Local Stakeholders and Watershed Organization Staff

The following recommendations are intended for all individuals and groups at the watershed level, including local citizens, actors, interest groups, the board of directors for watershed organizations, and watershed organization staff. These recommendations summarize strategies that have been effective in the past, and propose several novel ones based on research findings from this thesis. It is recommended that stakeholders at the watershed level take into consideration the following:

1. **Implement Projects in Partnership with Stakeholders [7, 18]**

Implement a broad range of projects in partnership with other interest groups and organizations, while actively engaging citizens. Ensure these projects demonstrate collaborative norms, foster collective responsibility, and actions are clearly linked to their justifying rationales in relation to a shared vision. Encourage actors to make contributions such as time, money, expertise and other resources.

2. **Tailor Collaboration to Context [13]**

Where appropriate, create smaller issue-, sector-, and region-specific committees to increase inclusion, participation and relevance, dividing the watershed territory according to factors such as local issues, identities, geography and political boundaries.

3. **Establish Strong Relationships, Especially with Governments [14]**

Conduct in person meetings with municipal mayors and RMC representatives, as well as other local stakeholders to communicate the rationale of the voluntary process, the water master plan, and local government roles in plan implementation. Further, ensure all RCMs have a consistent representative that interacts with the watershed organization (for example, on the watershed organization's board of directors or technical committee). Representatives from watershed organizations may also want to attend RMC meetings.

4. **Leverage Existing Institutions and Individuals [9, 12]**

Use existing institutional structures, programs and organizations, convincing and involving key individuals. Leverage existing programs and organizations that align with watershed organization beliefs and values. Use existing networks of organizations such as agricultural unions, lake associations, business associations and municipal associations to engage larger communities. Engage and maintain contact with key individuals through ongoing interaction and collaboration with intermediaries such as community leaders, watershed organizations' boards of directors and organization staff.

5. **Clarify and Communicate Expectations [1, 9, 10]**

Clarify and clearly communicate expected roles and responsibilities for implementation, participation, support, regulation, and enforcement to stakeholders at all levels. Lack of local monitoring and enforcement of existing regulations must also be addressed through increased local capacities. Recommend that local stakeholders commit to implement actions in the water master plan, publicly or in writing. One potential mechanism to signify commitment is by signing a river contract, as was the original intention in the Quebec Water Policy (Quebec 2002).

6. **Use Narratives to Establish Collective Understanding [20]**

Develop a common understanding and articulate a coherent and consistent narrative, shared among local stakeholders, the Board of Directors, and watershed organization staff. Collective narratives can enable agents to establish and transmit coherent sets of ideas, including an organization's vision and goals, as well as how key strategies relate to these goals.

7. **Balance Sources of Information While Ensuring Credibility [2]**

Regularly and consistently conduct technical committees and public consultations, encouraging participation of those with credibility, influence and expertise. Verify with stakeholders that information is correct and relevant, as well as to balance sources of information.

8. **Ensure Plans Meet High Standards [11]**

Ensure consistent methods, format and high quality of water master plan to improve their credibility and relevance to the Quebec government as well as citizens. High quality plans will also enable the Ministry of Environment to better identify common issues related to water across Quebec, and formulate integrated strategies to address them.

9. **Engage in Education Initiatives [10, 16]**

Conduct ongoing education and awareness to engage stakeholders as well as larger communities within watershed territories. Partnerships with schools and experiential youth and community initiatives have proven effective. In addition, large community events that enable citizens to engage in experiences and relate to water issues are important. Organization staff are also encouraged to pursue formal education training in water education.

4. Further Research and Practice of Environmental Governance

This research demonstrated a novel method of assessing institutions of collaborative governance using the lens of legitimacy as a sociological concept. No other research has evaluated collaborative water governance from the multiple perspectives assessed in this research, and not from the sociological perspective of legitimacy employed here. This research is especially relevant to understanding and improving water governance in Quebec as it complements and builds upon previous research conducted in several other watersheds in Quebec (Baril et al 2006; Milot & Lepage 2010). Although researchers conducted preliminary institutional analysis at the infancy of the Quebec Water Policy and watershed organizations, and examined legitimacy using external normative criteria, no previous research has looked at collaborative water governance in Quebec from the multiple perspectives assessed in this analysis, and not using the methods employed here (Milot & Lepage 2010). Assessing legitimacy from multiple perspectives and levels of decision-making enabled identification of a plurality of local perspectives, but also differences in perspectives of what constitutes legitimacy between levels. One important finding is that a strong disconnect exists between what is legitimate in local watersheds and among provincial decision-makers. This provides a clearer understanding of metagovernance, the retention of unique a role and authority by states, and their resistance to devolve real decision-making authority because they may view such actions as illegitimate (Bell & Park 2006; Ribot 2002). Thus, a sociological interpretation of legitimacy was used to evaluate complex institutional processes of collaborative water governance.

However, given that collaborative governance, and political institutions in general, would ideally be legitimate to all citizens, evaluating legitimacy presents an overwhelming task. In Chapter 3, this was made manageable by identifying those perspectives most pertinent to understanding legitimacy. In addition, several important perspectives, such as First Nations and large industrial polluters, were not included in this study. This approach limited the representativeness of results to a select group of individuals closely involved in the collaborative process. As such, this research was limited to identifying the sources and deficits of legitimacy for collaborative governance according to key stakeholders rather than an absolute evaluation of legitimacy in context. However, this analysis remains highly relevant because legitimacy is never complete, but is an institutional ideal (Parkinson 2003). Identification of its sources and deficits

provided a direction from which to progress in pursuing enhanced legitimacy and effectiveness of constantly evolving governance institutions.

In addition, although Beetham's (1991) dimensions of legitimacy provided a useful tool for exploratory research, his interpretation of legitimacy, which is derived from normative principles of power relationships, was not ideal for assessing novel institutions of governance. Governance represents a fundamental change in the relationship between the state and citizens that does not necessarily rely on power relationships in the traditional sense (Stoker 1998). Governance relies on voluntary compliance rather than coercive sanctions or incentives that derive from the authority of governments: "The essence of governance is its focus on mechanisms that do not rest on recourse to the authority and sanctions of the government (Stoker 1998, p17)." In other words, governance relies on voluntary compliance rather than coercion to get things done. The moral power of institutions is less tangible and easy to define than that of traditional state-citizen relationships. Hence, it is less clear who the dominant and subordinate parties are when no clear power relationship is defined. As such, determining justifications according to beliefs shared by dominant and subordinate parties, and determining which parties must consent to grant legitimacy become problematic.

Compatibility between Beetham's dimensions and the social constructivist interpretation of legitimacy used in Chapters 4 resolved this dilemma, but only in part. Beetham bases his dimensions of legitimacy on a sociological interpretation, but does not take this interpretation to its logical conclusion: that not only explicit power relationships, but all institutions have moral power granted by their legitimacy. And legitimacy is an inherently multidimensional, complex and emergent characteristic of socially constructed institutions. Identifying strategies agents used to affect the legitimacy of collaborative governance as well as their rationales provided a method to empirically assess institutional change that explicitly addressed relationship between agency and institutions. However, agency is only one factor that affects legitimacy and thus drives institutional change. How agents influence other social phenomena, such as social and political movements or education to affect legitimacy and institutional change warrants further attention. Research might also seek to understand how agents react to and frame exogenous factors such as crises and resource constraints in leveraging these social phenomena to legitimate institutional change.

This research has broader implications for changing and improving institutions of environmental governance and their legitimacy. For institutions to work within the society in question they must be legitimate. However, this does not imply that existing beliefs, values and norms should be maintained, but that they need to be considered and evaluated. In some instances it may be desirable to change what constitutes legitimacy in society to make legitimate in practice what is normatively desirable or necessary. That is, we may have to develop the 'societal will' to do what we want or need to do. Hence, it is important to design and actively shape institutions so that they embody normatively justifiable ends, but are also legitimate in practice.

Developing and changing institutions and their legitimacy remains a key challenge as demonstrated by this research. Referring to the specific role of water in society, some have noted that "changing these norms at a progressive pace may not be fast enough to cope with escalating water stress (Gearey & Jeffrey 2006, p135)." But, given scenarios of future global water stress and inter-state relationships, legitimate relationships must necessarily change from formal democratic relationships to emphasize norms of collective responsibility and community guardianship (Gearey & Jeffrey 2006). Understanding how to change what is legitimate within society, and developing new ways to do so may increase the number of desirable options available within the bounds of ecological limits. Likewise, understanding agency, and in particular how agents affect institutional change, will be critical to ensuring that institutions of environmental governance enable rather than hinder humanity's efforts to pursue a thriving human-nature relationship.

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Appendix A: Interview Protocol

Interview Protocol: Assessing the Legitimacy of Collaborative Governance and its Limits for Quebec Watershed Management Organizations

Introduction to this Research Project and the Interview Process
We will review the following introduction to the project and the interview process with the interviewee(s) at the beginning of each interview.

Introductions:
Researcher: Christopher Orr, M.S. candidate, Faculty of Agricultural & Environmental Sciences, McGill University
Contact Information: Tel: 613-888-3052; email: christopher.orr@mail.mcgill.ca
Co-Researcher: Wietske Medema, Postdoctoral Researcher, Faculty of Agricultural & Environmental Sciences, McGill University
Contact Information: Tel: 514-970-0834; email: wietske.medema@mail.mcgill.ca
Supervisor: Dr. Jan Adamowski
Contact Information: Tel: 514-389-7786; email: jan.adamowski@mcgill.ca

Study Overview: Collaborative governance has been increasingly used to address water and environmental problems in recent decades. It entails a shift away from traditional elected representative decision-making towards voluntary and collaborative decision-making. However, claims that collaborative governance is a legitimate and effective form of governing remain understudied.

Objectives of this Research Project: The purpose of this research project is to assess the legitimacy of collaborative governance, and its limits in the context of watershed management organizations in Quebec, Canada. It will then explore how the limits to the legitimacy of collaborative governance interact with environmental considerations and affect how collaborative processes are interpreted and designed by watershed coordinators and policy-makers respectively.

Understanding stakeholder perceptions of the legitimacy of collaborative governance in Quebec will identify critical areas in which the legitimacy and effectiveness of collaborative governance might be improved. The objective of this research is to determine how collaborative governance can be most legitimate and effective at addressing environmental problems in watershed contexts by identifying potential ways to improve the clarity of collaborative processes, increasing knowledge of stakeholder participation, and improving implementation of watershed plans.

What is Involved in Participating: Your participation will entail an oral interview, lasting approximately one hour, to be conducted by a member of Professor Adamowski's research team, which will be tape-recorded in its entirety. I will ask you questions relating to your participation in and/or evaluation of the watershed management organization in which you have participated. The time and location of the interview will be at your own convenience.

Confidentiality Your participation is entirely voluntary and you can choose to decline to answer any question or even to withdraw at any point from the project. Anything you say will only be attributed to you with your permission; otherwise the information will be reported in such a way as to make direct association with yourself impossible. My pledge to confidentiality also means that no other person or organization will have access to the interview materials and that they will be coded and stored in such as way as to make it impossible to identify them directly with any individual (e.g. they will be organized by number rather than by name).

I will be using an electronic device to record the interview. I will be asking you questions and taking some notes during the meeting, which will take approximately one hour.

Tape recordings will only be accessible to members of Prof Adamowski's research team and will be kept on the research teams' password protected computers with files under password protection. Tape recordings will be used for the sole purpose of the research for transcription and data analysis. You may contact Professor Adamowski if you have any questions or concerns.

If you have any questions or concerns about your rights or welfare as a participant in this research study, please contact the McGill Ethics Officer at 514-398-6831. Email: lynda.mcneil@mcgill.ca.

Consent Form Signature Checklist
Before we begin the interview, I will review the following process with the interviewee(s):
1. I will ask you to read and sign the consent form.
2. If you choose to have the interview recorded I will start the audio recorder.
3. I will then ask a series of questions that should take approximately 1hr, but should not take longer than 1.5 hrs.
4. If you have any questions feel free to ask them at any time.

(*Review consent form with participant allowing time for participant to read the form and then ask for their signature.*)

Consent form signed   Yes.   No.   Date:

    After the participant has signed the form, ask the participant if they are comfortable with process and if they have any questions, or need anything before we begin the interview process.
    After receiving both verbal and written confirmation that the interviewee is ready to proceed with the interview and has consented to audio recording, we will notify the interviewee and start recording.
    We will begin this semi-structured interview, exploring several themes. You do not have to answer any questions you are not comfortable responding to. However, feel free to discuss anything you feel is important.

Interview Themes & Questions
    We will attempt to answer the questions under each theme by engaging the interviewee in a dialogue, asking the interviewee the series of questions under each theme, but allowing them to

freely discuss their experiences and perceptions. Probing techniques, whereby the researcher asks the interviewee to explain their responses in greater detail or elaborate on specific points, will be used to ensure answers to pertinent questions are explored.

Personal Information
Name: _____
Profession: _____
Contact Information: _____
Time: _____ Date: _____ Location: _____

Theme 1: General Information on Interviewee & their Watershed
Could you please describe the key water issues within your watershed as well as your involvement in these issues? Could you also describe your involvement in the OBV for this watershed?
1. What are the most important issues related to water in your watershed? Why?
   a. Examples: water quality, eutrophication (algae bleu-vert), pollution, economy, stakeholder conflicts, erosion, public health, other _____
2. Please describe your OBV and your involvement in it.
3. How long have you been involved with your OBV and in what capacity?
4. Are you or have been involved with any other organizations related to water issues?
5. How long have you been involved with these organizations and in what capacity?

Theme 2: The Structure of Collaborative Governance
We understand that there is an official mandate ascribed to all OBVs, could you describe in your own words the mandate of your OBV as well as its function in practice?
1. What is the ***mandate*** of the watershed organizations?
   a. Examples: to make a plan, to make decisions, to inform, to implement decisions, to take actions, to educate, to facilitate, data collection, monitoring, evaluation, other _____
2. Do you think that this is the ***appropriate purpose***? y / n If no, why not?
3. What other purposes should OBVs have?

Can you to tell us (more) about the water master plan (WMP) and its priority areas and objectives for this watershed?
1. What priorities and objectives does the water master plan include?
2. [Alternative in the case no WMP has been completed: could you give us an idea of the priorities and objectives that decisions and actions taken within your OBV focus on?]
3. Is there anything that should be included in the plan that hasn't been taken into account? [Examples: objectives, priority areas, actors or issues]

The OBVs exist within a broad institutional structure (or context) that affects how they work (this could refer to power, authority, jurisdiction, mandate, and distribution of capacities & resources). Can you describe this structure and tell us whether it facilitates effective decision-making and implementation?

1. In your view, do the key authorities and stakeholders (locally as well as provincially) collaborate sufficiently to achieve a more integrated approach towards water management?
2. Does the collaborative structure facilitate effective decision-making and implementation?
3. Do stakeholders possess the **required capacities** to make decisions and implement them? [Examples: funding, expertise, labour, resources and knowledge]
4. Do stakeholders possess the **required mandate** to make decisions and implement them?
5. Does the **appropriate legal structure** exist (for stakeholders to make decisions and implement them)? [Examples: jurisdiction and authority]
6. Do stakeholders possess the **political support** to make decisions and implement them? [Examples: political will, commitment, and urgency from both local and provincial levels]
7. We understand that the OBV and stakeholders involved may not have all the **power they need to implement decisions**. Who else does?
   a. Examples: State (Federal, Provincial), Comites ZIP, CRE, MRCs, Municipalities, OBV staff, Economic interests, Social Organizations, Environmental Organization, Citizens & Other

We understand that the OBV is responsible for coordinating/facilitating a collaborative process between the different stakeholder groups in each watershed. Could you describe the way this collaborative process is facilitated by the OBV for your watershed?
1. What **rules and procedures** define the collaborative process?
   [Note whether interviewees are able to articulate these rules and structure or   have thought about them]
2. Are these **rules and procedures followed**? [Examples: regulations and a comprehensible process]
3. How frequently and through what means does **communication** occur?
4. How is **collaboration facilitated**? How could it be improved?
5. Is there any communication, knowledge development and sharing taking place between the local watershed levels and any provincial agencies and authorities?
6. Could you describe from your experiences the collaboration and communication process that takes place between key actors and stakeholders?
7. Is the stakeholder collaboration process in your watershed open and accessible to any of the key actors and stakeholders as well as the wider public to become involved if they choose to?
8. Is any knowledge and information regarding water management issues and decisions generally gathered through joint fact-finding, and are these resources openly accessible to anyone?
9. With regards to any water management actions taken within your watershed, is there any monitoring and evaluation of the effects and outcomes of these actions and decisions?
10. Are there generally 'lessons learned' meetings or workshops organized that promote a broader community dialog about what has been done and learned?
11. Can you identify specific individuals or organizations that take a **strong lead in the collaborative processes**?

Theme 3: People

Many stakeholders are associated with the OBVs, directly and through this broad context you've just described. Can you tell us about the people and organizations that affect water issues within your watershed and how?

1. **Who participates** in activities related to your OBV? In what capacity?
2. Are there any stakeholders essential for the success of the process that are currently not participating? Should any stakeholders be included or excluded and why?
3. Have any stakeholders **left or joined the process**? Have any changed the way or frequency with which they participate?
4. What type of **approval or support** do OBVs receive from (a) the public, (b) participating stakeholders and (c) the government?
   a. Explicit examples: accolades, public approval
   b. Implicit/tacit examples: participation, provide funding, provide resources (such as expertise), policy, legislation, implementation
5. Do any stakeholders or citizens **speak out against or oppose** the process (or otherwise express their express or implicit dissent and withdraw of consent)?
   a. Explicit examples: criticism, protest
   b. Implicit examples: fail to acknowledge process, block/impede process, refusal to participate, refusal to implement, withdraw of funding
6. Are you aware of any largely differing perceptions between certain stakeholders regarding water issues in your watershed? Between which stakeholders or categories of stakeholders do these differences occur?
7. How would you describe the level of trust and openness between the different stakeholders and towards the OBV or any of the other local water authorities?
8. Is there **willingness by stakeholders to implement** the water master plan and its proposed actions?

Can you describe the roles and responsibilities of those involved in the OBV process, such as stakeholders in your watershed, OBV staff and the government?

1. What are the roles and responsibilities of stakeholders in your watershed, OBV staff, and the government?
   a. Stakeholders in the watershed, OBV staff and the state
   b. Examples: making decisions, making plans, informing public, implementing decisions, taking actions, education, facilitation, data collection, monitoring, evaluation
2. Are roles and responsibilities (1) explicit and well articulated, (2) clear and understandable?
3. Do stakeholders fulfill their responsibilities? Which ones do or do not?

Do you agree with the way the roles and responsibilities are currently assigned to each of the involved stakeholder groups?

4. ***Should*** these roles and responsibilities be as they are? (Y/N) Do you agree or disagree with the way roles and responsibilities are assigned? If not, why?
   a. Examples: norms of active citizenship, obligations of citizens, grassroots/bottom-up processes, unique role of state, state's continued control
5. Do stakeholders take collective responsibility for decisions and actions? In what ways?

The OBV process involves many individuals and groups making decisions related to water problems (for example through the water master plan, its implementation, and the OBV process in general). Who makes these decisions and how?
1. Who makes decisions?
    a. Examples: State (Federal, Provincial), Comites ZIP, CRE, MRCs, Municipalities, OBV staff, Economic interests, Social Organizations, Environmental Organization, Citizens & Other
2. Do ***non-state stakeholders influence collective decision-making***? In what ways?

Would it be more effective if someone else in addition to/or in place of the existing decision-making stakeholders would be included in decision-making?
3. Who ***should*** make decisions?
4. To what degree do decisions reflect ***issues that are common to all***, rather than private interests that only affect some individuals or groups?
5. On what reasoning are decisions based?
    a. Examples: interests of certain groups, interests of all citizens, scientific evidence, economic rationale, religion, unexplained, other_____
6. Should these be the reasons that decisions are based on? Why or why not?
7. What individuals, groups, positions or ideas should be considered?

Theme 4: Change
What would you change about the OBV process and the way water issues are addressed in your watershed?
1. What would you change about the current collaborative structure and process as well as the policy and legal framework?

Closing Comments
Do you have any additional comments that you would like to share concerning the Quebec watershed organizations?
Do you have any further questions?
Do you know of any other stakeholders that would be knowledgeable and interested in conducting an interview to discuss their perspectives on the watershed governance?
Thank you for taking the time to share your perspective on the Quebec watershed management organizations. Your comments will be helpful in this research.

Note time interview ended: _____

Notes: