Using stakeholder perceptions to inform organizational actions: Case study of the Toronto and Region Conservation Authority

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any final required revisions, as accepted by my examiners.

I understand that this thesis may be made electronically available to the public.

Abstract

The Toronto and Region Conservation Authority (TRCA) has been primarily responsible for the management of watersheds in the Toronto region since the late 1950s. Guided by provincially mandated responsibilities, they have implemented regulation to prevent flooding of natural and human areas, acquired land holdings for the purposes of conservation, recreation, species protection and habitat renewal and acted as a regional governance structure to ensure the health of their watersheds – all while working closely with local municipalities, ENGOs, private sector and citizen groups. The TRCA's watersheds are located in Canada's most populated city and surrounding region, resulting in a complex system in which the watersheds are facing rapidly increasing population, urbanization and land use alongside the challenges of a globally changing climate. The TRCA has recently conducted studies that find the overall health of the Toronto region's watersheds is declining, and the organization must now address this reality.

The TRCA is primarily a conservation organization, but to address complex problems that are contributing to the declining health of watersheds, the TRCA believes it must broaden its mandate to include new sustainability-related goals. However, the TRCA is unsure of how their stakeholders perceive them, and how those perceptions might affect their organizational actions toward sustainability goals. For an organization that interacts with a diversity of stakeholder groups, the TRCA should be aware of these stakeholders' perceptions of the organization and the impact they have on the TRCA's strategic directions.

This thesis intends to address the gap in the TRCA's understanding of their stakeholders' perceptions of their organization. Semi-structured interviews were completed with twenty-three

of the TRCA's important stakeholders. Analysis of the data was done through multiple iterations of coding the interview transcripts for emergent themes.

The TRCA's stakeholders are diverse, and this was reflected by the diversity of expectations that stakeholders have for the TRCA. Some expectations exist in opposition to each other, such as an equal amount of stakeholders who expect the TRCA to confine their role to their traditional mandate as stakeholders who expect the TRCA to orient their role around new sustainability directions. Stakeholders also attribute a high level of organizational legitimacy to the TRCA for their traditionally mandated responsibilities. This meant that many stakeholders were concerned about the TRCA taking on other responsibilities beyond their mandate. Generally, most stakeholders perceive the TRCA as an organization that supports other organizations in sustainability pursuits rather than taking the lead. This is reflected by analysis that shows the TRCA's new strategic directions that do not reflect their traditional roles resonate weakly with stakeholders.

Organizational legitimacy is a strength for the TRCA but it may hold the organization back if they attempt new directions. The TRCA should be aware of the concern among many stakeholders who feel the TRCA is taking on more than they should. This, combined with the finding that most stakeholders see the TRCA as a supporter of other organizations, could pose a challenge to the TRCA if they are trying to take a leadership role in new sustainability directions. The TRCA should continue to use a systems perspective to understand stakeholder perceptions, as stakeholders, especially in the TRCA's context, can have an effect on their actions. If the TRCA is aware of the system dynamics affecting them, the organization will be able to make strategic decisions for implementing actions with the least resistance and the most support among stakeholders. The strength of assumed legitimacy that the TRCA holds, coupled with

their reputation as a supporter of other organizations, could be a unique advantage to the TRCA for implementing actions that require coordination or cooperation with multiple stakeholders.

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Chapter 1. Introduction

1.1 Introduction to the Research Question

In the 1940s and 1950s, southern Ontario became one of the first areas in the world to implement conservation authorities for governance and protection of natural resources (Mitchell & Shrubsole, 1992). At the time, the issues facing the regions (such as flooding and lack of storm water management) were what helped to push the province of Ontario to enact the unprecedented legislation that made conservation authorities possible; the Conservation Authorities Act (1946; 1958). The Act gives the conservation authorities mandated powers to manage, study and regulate waterways within their jurisdiction in order to prevent flooding and pollution (Conservation Authorities Act, 2011). The conservation authorities (supported locally by their municipalities which are supported by the provincial government) are unique in that their governance jurisdictions are based on naturally occurring watershed boundaries (Mitchell & Shrubsole, 1992). The conservation authorities of southern Ontario have been regarded as a success in their conservation role over the last six decades (Shrubsole, 1996).

Conservation authorities are each unique from one another other given the diversity of their jurisdictions. Some authorities exist in more rural or unpopulated areas and are therefore smaller and less complex organizations, such as Ontonabee Conservation Authority in southern Ontario with a full time staff of only thirteen persons (Ontonabee Conservation Authority, 2015). Other authorities are responsible for watersheds in highly populated, urban areas. One conservation authority in particular, the Toronto and Region Conservation Authority (TRCA), is responsible for watersheds that exist in the most highly populated urban environments in the province, the city of Toronto and its surrounding regions. This results in a much larger authority in terms of

full time staff (475 persons) and operations (Toronto and Region Conservation Authority, 2015). Because of their size and complexity, the TRCA encounters a variety of different stakeholders in their daily work including government agencies, private industry, environmental non-government organizations (ENGOs), landowners and citizens.

The watersheds governed by the TRCA are presently facing challenges mostly due to the intense and increasing urbanization of the regions. According to the TRCA's watershed report cards (2013) the overall assessment of watershed health in Toronto and the Toronto region is poor. Surface water quality in the watersheds is directly related to natural forest cover that in many areas is declining, and where it does remain it is fragmented by residential development and agriculture practices. Increased development removes natural forest cover and often leaves paved cover in its place, meaning there is less permeable ground to absorb storm water and prevent flooding, erosion and water pollution (Toronto and Region Conservation Authority, 2013). The watersheds operate as systems that are interconnected at many scales and where one component such as forest cover can have cascading effects on many different system components.

In response to the declining health of the watersheds, the TRCA has updated its policy documents and developed a 10 Year Strategic Plan (2013). The documents reflect the TRCA's Living City Vision: "The quality of life on Earth is being determined in the rapidly expanding city regions. Our vision is for a new kind of community, The Living City, where human settlement can flourish forever as part of nature's beauty and diversity" (Toronto and Region Conservation Authority, 2015). The goals and strategies laid out in the new policy document (The Living City Policies) and the 10 Year Strategic Plan are based in the traditionally mandated responsibilities of the TRCA as outlined in the Conservation Authorities Act (2011). These documents also incorporate goals and strategies beyond the traditionally mandated

responsibilities that reflect the TRCA's aim to position their organization as a leader in facilitating sustainability and sustainable practices in the city and region through economic and community planning strategies. The TRCA is recognizing that challenges that exist on a broader scale than the authorities traditionally work in, such as climate change, a globalizing economy and increasing population and development in the regions, will have an effect on the watersheds and work of the TRCA (Toronto and Region Conservation Authority, 2013). The TRCA has begun to address this challenge by directing more action toward sustainability. This reflects the TRCA embracing a systems approach, in which the watersheds and regions are a network of interconnected relationships and components at different scales, instead of separate parts operating without external influence (Toronto and Region Conservation Authority, 2014). A system is made up of a set of components that are interconnected to form a structure that exhibits different system behaviours (Meadows, 2008). Systems thinking and systems approaches can be used to examine a situation to understand these system behaviours and to "identify root causes of problems and see new opportunities" (Meadows, 2008, p. 2). A systems approach helps to reveal new ways of framing problems that weren't otherwise considered, which can lead to more creative solutions to address complex problems.

A systems approach means that the TRCA must understand their organization as a component in the larger system. The TRCA's actions could be affected by other components of the system, such as the variety of stakeholders with which they interact. Stakeholders can have an important effect on an organization's identity, and that identity can have an important effect on the organization's actions and outcomes (Albert & Whetten, 1985). It is important for organizations to be aware of stakeholder perceptions and expectations in order to act strategically, especially if the organization is taking an action that could influence their organizational identity. The

TRCA's updated policy documents represent an organizational change at the TRCA in the form of newly articulated directions and actions. Especially in the case of the TRCA, where many municipal and provincial stakeholders provide significant support to the organization, an understanding of stakeholder perception is important to the TRCA's existence. From a systems perspective, an understanding of stakeholder perceptions and expectations of an organization might reveal relationships and connections between scales that are driving system behaviour. As the TRCA looks to pursue new actions driven by new strategies outlined in their updated policy documents, an understanding of stakeholder perceptions and expectations of the TRCA would be useful knowledge to have in order to make strategically informed decisions about their actions.

In a 2013 systems mapping workshop with the TRCA and their academic partners, it was revealed that the TRCA was unsure of their stakeholder's perceptions. Organizational leadership could only speculate as to what their stakeholders believed about the TRCA. This revelation revealed a gap in organizational understanding of information that, from a systems and organizations perspective, seemed necessary to fill. This is especially relevant information to know, considering the new and expanded actions that will follow from both the updated Living City Policies document and the 10 Year Strategic Plan that will be experienced by the organization's stakeholders.

1.2 The Research Question

The purpose of this thesis is to fill the gap in the TRCA's organizational understanding of stakeholder perceptions of their organization and analyze those perceptions from a systems perspective, using organizational literature and concepts to illustrate the system. The objectives of this research are outlined below:

1. Assess stakeholder perceptions of the TRCA's identity as an organization, and of the TRCA's current and future role vis a vis sustainability.
2. Using a systems thinking approach, and integrating concepts from organizations literature to analyze the interview data, attempt to clarify the TRCA's position in the system and possible directions or opportunities for the organization, as well as identify potential challenges that they may face.
3. Provide meaningful and useable information that the TRCA can utilize to inform current and future strategic decision-making.

This analysis will help to identify barriers and opportunities for the TRCA's capacity moving forward as an organization. The research provides an exploration of the initial perceptions of the TRCA according to its important stakeholders and partners, gathered from qualitative, semi-structured interviews. What are stakeholders' perceptions of the TRCA's identity, and what do stakeholder insights and expectations of the TRCA reveal about the TRCA's capacity to implement new strategies through organizational changes?

This research has been undertaken using a participatory action research (PAR) approach (see chapter 4, section 4.1.1). A PAR approach means that the organization or group being studied participates in the formation of the research question and continues to participate meaningfully in the research process throughout the project (Whyte, 1991). The PAR approach of this research is supported by a Social Sciences and Humanities Research Council partnership project between University of Waterloo and the Toronto and Region Conservation Authority. The University of Waterloo and the TRCA are collaboratively pursuing research that intends to explore the TRCA's role and involvement in the declining health of the Toronto Region's watersheds. This specific thesis contributes to the overall goal of the partnership project, and due to the PAR

approach, the TRCA's research interests and needs are critically important and have influenced the direction of this work.

The following chapter provides a review of the literature, beginning with a brief overview of the concept of 'sustainability' as it is an expressed driving factor of TRCA's updated policy documents. The chapter also presents an in-depth review of systems thinking and of relevant organizational behavior literature that explains the importance of stakeholders and stakeholder perceptions to the success of an organization's actions. Chapter three presents the TRCA case study and gives in-depth information for an essential understanding of the TRCA, outlining the history of conservation authorities and of the TRCA as well as a contextual background on Toronto and the Toronto Region. Chapter four outlines the methods that were used to gather data and frame the research and analysis. Chapter five presents the results from interviews, using anonymous quotations throughout to illustrate the findings, ending with a summary of major themes that emerged from the interview data. Chapter six analyzes these themes from a systems perspective, using organizational literature discussed in chapter three to support observations and draw conclusions. Chapter seven succinctly provides recommendations for the TRCA and for research derived from the analysis in the previous chapter. Chapter eight presents concluding statements and observations from the research.

Chapter 2. Literature Review

This chapter introduces the concept of sustainability and the history and various meanings of the term. The TRCA has expressed commitment to sustainability strategies in its policy documents and so an understanding and an attempt at application of the concept, specifically in the context of transitioning to urban sustainability, are necessary. The next section explains how systems thinking approaches are used as an analytical framework to understand situations in which complex interrelationships are involved. A systems approach is what has framed this research from the initial research question to the gathering and analysis of the data. Organizational concepts are used to ground the systems approach in the context of an organization such as the TRCA. The final section of this literature review introduces relevant organizational concepts such as organizational change, identity, image, legitimacy and reputation. A brief discussion of organizational stakeholders helps emphasize the importance of stakeholders in influencing organizations' actions. The concepts from organizational literature are used to analyze the relationships and patterns that emerge from a systems thinking framework.

2.1 Sustainability

The TRCA is motivated to address poor watershed health in their watershed boundaries by focusing on sustainability. This means in some situations that they are acting beyond the scope of their traditionally mandated responsibilities. To pursue sustainability requires change, because the concept is an inherent admission of the inadequacy of current actions to bring about desired results (Gibson, 2005). This change requires a systems approach (to be discussed in the next section, 2.2 Systems). Sustainability, although a popular term, is also widely debated in its meaning and criticized for its vagueness and potential to have broad applicability that can weaken the approach in practice (Christen & Schmidt, 2012). There are many interpretations of

the concept and because sustainability is a concept that inspires the TRCA's recent and future actions, it should be at least briefly introduced and the issues and debate around it explained in order to contribute to the justification of the analytical framework of this thesis.

2.1.1 Conceptions of Sustainability

Sustainability is a modern concept used to describe a modern problem. Before economic progress became the norm, societies engaged in a kind of 'old sustainability' in which culture and practice valued stability and prioritized keeping things the same (Gibson, 2005, p. 39-41). With the development of a modern, global society focused on growth and consumption came a host of new social and ecological problems and a reduction in human welfare (Mishan, 1967). The concept of sustainability might be viewed as a response to these problems in the form of a critique, as Gibson (2005) suggests:

> The concept of sustainability would spur no interest in a world generally confident that its current approaches will resolve looming problems and ensure a viable future. Critique is not the whole story, of course. The appeal of sustainable alternatives may be as much hopefully as critical – offering a response to doubts about the viability of current trends while accommodating optimism about our ability to turn things around without much pain. But the notion quite clearly rests on the rejection of things as they are (p. 38).

The need for a concept such as sustainability is justified by our human reliance on the biophysical environment for its life-sustaining resources, as well as our relative lack of understanding about the complexities of the biophysical environment. These ideas necessitate an approach to cautious management of the earth's resources (Robinson, et al., 1990). Some also argue for management of the environment based on an ethical principle of the earth's intrinsic value that "the existence of the natural world is inherently good" (Robinson et al., 1990, p. 38).

One of the most well-known modern applications of the term 'sustainability' comes from the 1987 report by the World Commission on Environment and Development titled Our Common Future (WCED, 1987). The report called for sustainable development to address social (especially poverty), environmental and economic concerns of the time to ensure that common resources are protected for future generations. The commission proposed that while there are certain limits, sustained economic growth is possible as long as it is based on economic policies that do not harm the environment, and it proposed global strategies for this type of sustainable development (WCED, 1987). The report was immediately popular among global leaders and sparked a commitment to the WCED's outlining strategy of sustainable development. Although the term sustainability has been broadly integrated into development, there has been little success of the intended outcomes (improved environmental conditions, decrease in global poverty) from sustainable development approaches (Gibson, 2005).

The concept has evolved somewhat since the WCED report, although it has been highly debated in the literature; often inspiring critique about the vagueness of the term or concerns that it is too widely applied (Gibson, 2005). However it still perseveres as a popular concept of application among actors in a variety of contexts, from a global to local scale. Part of the popularity of the concept is due to its apparent vagueness that leads to it being broadly applied with ease, weakening its effectiveness in practice (Christen & Schmidt, 2012). Attempts have been made to clarify the concept and ground it through frameworks and proposed criteria for sustainability (Christen & Schmidt, 2012; Gibson, 2005). The debate about the concept and frameworks of sustainability has been argued to be useful in itself for promoting discussion of the concept and related issues (Robinson, 2004) and for allowing a diverse set of actors to attempt its application in various contexts (Gibson, 2005).

Sustainability, in a general sense, can be interpreted as an effort to ensure the continuation of our social and political system into the future, inspired by the idea that current management of the Earth's resources is unsuccessful and threatens the well-being of future generations (Robinson et al., 1990; Gibson, 2005). Sustainability has also been popularly conceptualized as the successful integration of three 'pillars' (environment, society and economy) to achieve a safe balance of these through appropriate prioritization, with environment being the most important pillar upon which the other two depend (Gibson, 2005).

2.1.2 Weak and Strong Sustainability

Various scholars have argued that different definitions of sustainability exist on a spectrum of weak to strong sustainability (Neumayer, 2013). Weak sustainability is characterized by a guiding principle of maintaining economic capital (Neumayer, 2013), while strong sustainability, incorporating an ecosystem perspective, insists on the maintenance of natural capital, or the biophysical environment (Hediger, 1999). Weak sustainability advocates for maintenance of capital whether it is human made or natural, whereas as a strong sustainability stance must be based on the maintenance of the natural world, as human made capital is not a suitable substitute (Neumayer, 2013). One of the implications of these two opposing paradigms, as Neumayer (2013) discusses, is that with regard to climate change, whereas a strong sustainability approach would call for immediate attempts to curb the destruction of natural capital, a weak sustainability approach does not necessitate any immediate action on reducing carbon emissions and may even emphasize the importance of emissions to sustain necessary human made capital (p. 46).

2.1.4 Conclusions: Transitions to Sustainability

As Gibson (2005) notes, sustainability is a "challenge to prevailing assumptions, institutions and practices" (p. 38). If the root of sustainability is an admission that our current trajectory of

management of the Earth's resources is the wrong one, it follows that changing our current behaviour is a necessary component of sustainability and sustainable development. It is quickly becoming an accepted notion that achieving sustainability may require changes at the fundamental level of societal and governance structures and widely held cultural beliefs (Westley et al., 2011). The literature on transitions toward sustainability draws on complex systems concepts to argue that a transition toward sustainability must encompass a profound change in the current system and involves "a quest for new value systems" (Grin, Rotmans & Schot, 2010, p. 2).

The approaches for transitions to sustainability use systems concepts and systems thinking as a framework. In the following section, systems thinking and systems concepts will be explained and systems approaches for transitions to sustainability will be discussed.

2.2 Systems Thinking

This research emerged from a systems mapping exercise where researchers realized the potential discrepancy in how its stakeholders might perceive the TRCA and how the organization thought their stakeholders perceived them. How an organization is perceived has many implications for an organization wanting to change, especially with regard to sustainability, and it is also important from a systems perspective. The reason for framing this research in systems thinking is that systems concepts form a foundation for understanding transitions toward sustainability (Westley et al., 2011). A systems approach is also necessary to gain an understanding of the broader social, political, economic, ecological context that the TRCA is operating within. To do this, TRCA should first understand where they, as an organization, fit into this system. One way to do this is by having stakeholders start to define their perception of TRCA's roles in order to map out stakeholder relationships with TRCA, which will help to describe the system. Another method would be to build on this work and develop a robust social network analysis of the system (this may be undertaken by other members of the research team). This section will explore relevant aspects of systems thinking as a framework for understanding the research problem and as a way to justify the research approach. The first part of this section describes the history of systems thinking and complexity until present and its usefulness for understanding complex social ecological systems. The second part of this section discusses systems approaches toward sustainability through concepts such as the ecosystem approach, resilience thinking, and social innovation.

2.2.1 Systems Thinking and Complex Systems

The beginnings of systems thinking originated arguably as far back as Aristotle's time when he theorized about holistic behaviours of parts of a system (von Bertalanffy, 1972). More recently,

theorizing about systems began in the late 19th and early 20th century when a more holistic approach to scientific inquiry was starting to gain popularity (Checkland, 1981). The beginning of an explicit theoretical approach to systems thinking was proposed by Ludwig von Bertalanffy, called a General Systems Theory, in the mid 20th century (von Bertalanffy, 1950). He recognized the existence of complexity, self-organization, and system behaviours influenced by the dynamics of open systems rather than closed, and believed this to be where traditional scientific inquiry fell short in its analytical capacity (von Bertalanffy, 1972). His ideas laid the foundation for understanding systems as complex, self-organizing and reacting to dynamics of open systems (Checkland, 1981).

In the years following von Bertalanffy's general systems theory, many have built on his ideas to propose theories around complex systems, in particular with systems approaches for addressing sustainability and ecological problems. Funtowicz and Ravetz (1993) argue that the complexity associated with most social ecological systems requires more than the narrow approach that has been typically applied to traditional scientific inquiry. They argue that, "The reductionist, analytical worldview which divides systems into ever smaller elements, studied by ever more esoteric specialism, is being replaced by a systemic, synthetic and humanistic approach" (Funtowicz & Ravetz, p. 749). They describe what they call 'post-normal science' as a new approach to analysis and decision making in situations where the dynamics of system components interact to create high uncertainty, complexity and emergent behaviours (Funtowicz and Ravetz, 1993). This idea of a post-normal approach to problems involving complex social ecological systems is invoked by further systems thinking approaches that apply a systems lens to environmental and sustainability problems (Waltner-Toews & Kay, 2005).

2.2.2 Complex Adaptive Systems and Key Concepts

The idea of complex adaptive systems draws on the concepts of emergence and complexity in systems behaviour to explain how complex systems adapt and change to their environment. Duit and Galaz (2008) refer to complex adaptive systems as, "…a special case of complex systems and an extension of traditional systems theory" (p. 312). This is because complex adaptive systems does not consider there to be a possible ideal equilibrium point within a complex system, and extends systems analysis to include interactions between system scales and with other systems (Duit & Galaz, 2008). Complex adaptive systems are characterized by the ability of system components to react and reorganize in response to the system environment (Holland, 1992). Holling (2001) describes this as an adaptive cycle in which a system slowly accumulates and conserves resources, keeping itself in a stable state, until forces acting on the system cause the stable state to come undone and reorganize around a new equilibrium (see figure 1). Holland (1992) describes what he calls an "evolving structure" of complex adaptive systems:

> That is, these systems change and reorganize their component parts to adapt themselves to the problems posed by their surroundings. This is the main reason the systems are difficult to control – they constitute a "moving target" (p. 18).

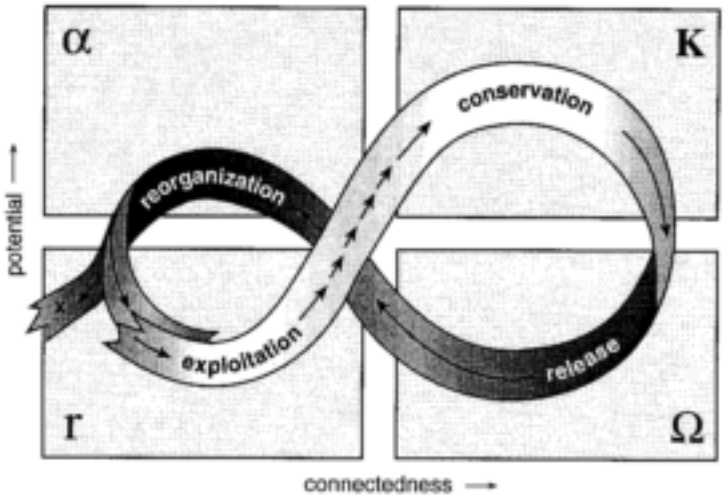

Figure 1. Adaptive Cycle (taken from C.S. Holling, 2001)

Along with being able to evolve in response to their environment, complex adaptive systems also exhibit what he calls an aggregate behaviour resulting from the emergent behaviour of the interaction of system components, as well as from the changes caused by the ability of the complex adaptive system to anticipate certain changes or events and adjust behaviours accordingly (Holland, 1992). Adaptive behaviours can also be observed on different scales of a complex system, operating on their own and interacting between different scales, influencing levels from larger, slower moving processes in higher scales and smaller, rapid processes in lower scales, forming a panarchy (Holling, 2001; Holling & Gunderson, 2002).

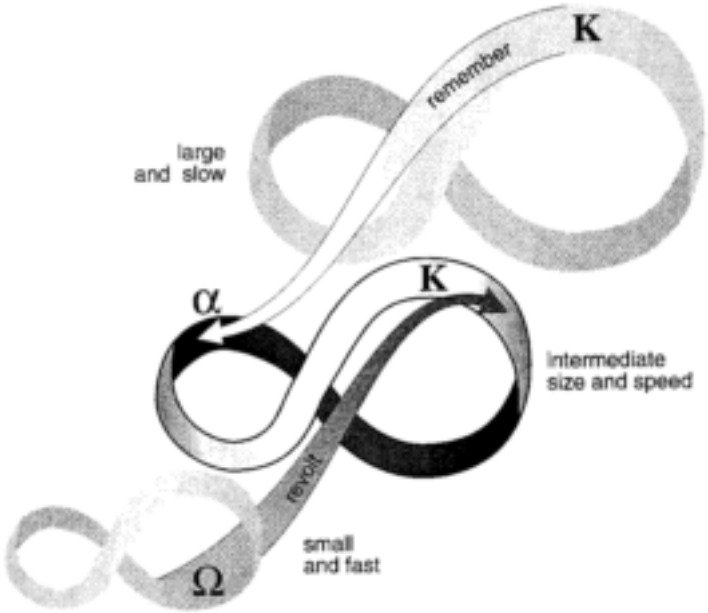

Figure 2. Panarchy (taken from C.S. Holling, 2001)

Within complex adaptive systems, there are certain system concepts and behaviours that are key to understand in order to analyze them. Below, these concepts that are relevant to the application of a systems thinking analysis of the data and findings are defined and described.

- Hierarchy and scales: From a complex adaptive system perspective, interactions in systems create levels or scales within a larger system. These scales operate as smaller

systems and communicate information or flows between them to create the dynamics of the larger complex adaptive system (Holling, 2001). These dynamics can also operate on scales between different systems to create cascading effects that cause change not just to the original system but to interconnected systems as well (Duit and Galaz, 2008).

- Emergence: New system patterns or behaviours arise out of non-linear interactions between hierarchical scales as well as between interconnected systems. Parts of complex systems interact and from those interactions can emerge system dynamics that would not be possible or explained otherwise (Goldstein, 1999).
- Self-organization: Self-organization is a system dynamic that emerges from interaction between parts of a complex system at different scales. Often a system exhibits self-organization in order to maintain its current structure in the face of pressure or disturbance (Kay, 2008; Kay & Boyle 2008).
- Feedback loops: In a self-organizing system, processes generated by the internal dynamics of the system explain behaviour and patterns. Kay and Boyle (2008) explain that, "Because these processes are made up of reciprocal or circular relationships in the form of feedback loops, explanation will necessarily be circular or non linear" (p. 57). By this they mean that causes and effects of system behaviour may be one and the same. Feedback loops can be positive (reinforcing certain behaviours or patterns) or negative (acting as a balancing force against itself).
- Uncertainty: Complex systems are inherently uncertain because of multiple perspectives that hold multiple understandings of a system, as well as the unpredictability of self-organization (Waltner-Toews & Kay, 2008).

2.2.3 Approaches for Understanding Complex Systems

Systems thinking can be helpful in analyzing and interpreting a problem in which complex adaptive systems and self-organization are present (Kay, 2008). There are many approaches that invoke complex systems concepts in a variety of contexts. The ecosystem approach, resilience thinking, and social innovation are three approaches that focus on addressing problems in complex social ecological systems, including issues of sustainability. These three approaches are elaborated on below.

2.2.3.1 The Ecosystem Approach

The ecosystem approach is a new approach at managing for sustainability, based on systems thinking concepts of complexity and emergence (Waltner-Toews et al., 2008). It relies on both traditional ecological concepts and new ways of framing scientific understanding and research to incorporate complexity and systems thinking in order to understand ecosystems in a multi-disciplinary way (Waltner-Toews et al., 2008). New sustainability challenges exist in times of uncertainty that require multi-dimensional approaches and solutions that integrate ecology, politics, economics, etc. and an ecosystem approach addresses this in a systems based and participatory or collaborative way (Waltner-Toews et al., 2008).

An ecosystem approach is based on the idea of self-organizing holarchic open systems (SOHO systems) in which internal process that form causal loops result in behaviours that reinforce a system's existence as an entity resulting from, but existing beyond, its parts (Kay & Boyle, 2008). SOHO systems behave according to non-equilibrium thermodynamics meaning that when a system is pushed away from equilibrium via external energy, it will resist until it cannot maintain equilibrium and will reorganize its components and structure around a new equilibrium (Kay et al., 1999; Kay & Boyle, 2008). The space in which a system organizes in equilibrium is

called an attractor, and when a system is pushed out of equilibrium it is attracted to another domain or attractor around which it reorganizes (Kay et al., 1999). Because of the existence of multiple attractors for any one complex SOHO system, there is a necessary element of uncertainty about which attractors exist that a system might self-organize around, meaning that predictions about system behaviour can never be certain (Kay et al., 1999). Because of this inherent uncertainty, the objective of studying a complex system is not to predict with accuracy the future of the system, but to suggest, based on forming narratives of a system, what the future states of a system could be and providing an understanding to decision makers about what factors might influence the stability or direction of the current system (Kay et al., 1999).

To properly study SOHO systems a narrative of the issues of interest in the system must be identified through consultation with a plurality of perspectives and stakeholders involved in the system, and representing multiple disciplines is required (Kay et al., 1999). Narratives are also created to "…describe how these systems might unfold over time." (Kay et al., 1999, p. 731). Analysis of system behaviours such as identified feedback or causal loops and identifying potential attractors can suggest the possible future directions of a system (Kay et al., 1999). Kay (2008) later refers to this narrative construction as a systems description, followed by analyzing the systems behaviours to understand what might happen in the future. It is important to analyze systems in this way, given the connections at various scales and hierarchies that can lead to massive system change toward different attractors, events or pressures could occur that indirectly affect a system in a permanent way. Without a systems perspective, these indirect events or pressures might not be considered important to the overall system's behaviour until they have started to affect the system irreversibly (Kay & Boyle, 2008).

Given the uncertain nature of predicting SOHO systems behaviour and future states, emphasis should be placed on adaptive management rather than anticipatory management. Managing for adaptive capacity of a system involves focusing on the evolutionary capacity of human systems in order to adapt to unanticipated changes in a complex system (Kay et al., 1999).

2.2.3.2 Resilience Thinking

Resilience is "the ability of a system to absorb disturbance and still retain its basic function and structure." (Walker & Salt, 2006, p. 1). The concepts that resilience thinking draws upon are similar to the ecosystem approach in that it recognizes the self organizing behaviour of complex systems, which can be pushed into new attractors, and advocates for an adaptive management approach that prioritizes resilience in complex systems over efficiency or optimization (Walker & Salt, 2006). Resilience thinking is based in Holling's (1973) work on ecological systems and the relationship between stability and resilience. He began to differentiate between simply managing for stability of a system to managing a system for resilience and capacity to absorb changes (Holling, 1973). This inspired his further work in adaptive management of complex systems, based in a theory of complex systems existing in an adaptive loop that operates at various time and space scales all at once, forming a panarchy (Holling, 2001; Gunderson and Holling, 2001). The adaptive cycle is a visualization of the different stages of existence of a complex system life cycle in which it slowly accumulates resources and remains in a stable 'conservation' phase until disturbances to the system quickly create opportunities where the system is collapsed, the 'back loop', and pushed to a new attractor where it reorganizes itself and the cycle completes again (Holling, 2001; Walker et al., 2004) (for a diagram of the adaptive cycle see figure 1 in section 2.2.2 Complex Adaptive Systems and Key Concepts). Given the uncertainty in the back loop phase of the adaptive cycle, along with managing for resilience and

the adaptive capacity of a complex system, it is also important to manage a system's capacity for transformability, or the ability to create a completely new system (Walker et al., 2004). This type of transformational change is easier when affected at smaller scales and helps to contribute to resilience of the whole system on larger scales (Folke, et al., 2010; Walker & Salt, 2012).

In practice, managing for resilience of a complex system requires a similar process to the ecosystem approach described previously. This begins with the necessary step of describing the system followed by analysis of its resilience capacity and then actively managing the system for resilience (Walker & Salt, 2012). However in this type of analysis, the system description would focus on more resilience-focused complex systems dynamics such as identifying thresholds and attractors and trying to identify where a system is located in the adaptive cycle and what the scales below and above are, in an effort to identify a systems panarchy. A resilience approach in practice also calls for the inclusion of multiple different stakeholders and participants in an iterative process in the early stages of defining and describing the system (Walker & Salt, 2012).

2.2.3.3 Social Innovation

According to Frances Westley (2008), "Social innovation is an initiative, product or process or program that profoundly changes the basic routines, resource and authority flows or beliefs of any social system" (WISIR, 2008). Social innovation is another application of systems thinking and complexity concepts to an approach for managing complex systems for sustainability. Social innovation is grounded in resilience thinking, and like both the ecosystem approach and resilience thinking, acknowledges and emphasizes the influence of self-organization within complex systems:

> Single individuals, single actions and single organizations all play a part, but it is the subtle rules of engagement, between and among the elements, that is the force that seems

> to give initiatives a life of their own. Complex systems comprise relationships. Relationships exist between things. (Westley, Zimmerman and Patton, 2007, p. 10)

The authors of Getting to Maybe: How the World is Changed refer here to the capacity for complex systems to display emergent properties formed by the interactions between component parts of a system (Biggs et al., 2010). Social innovation is concerned with the back loop phase of the adaptive cycle, sometimes referred to as radical innovation (Biggs et al., 2010), in which transformation of the system and gravitation toward a new attractor is possible. The focus is on creating system change through actions and interactions that take advantage of a complex system in the collapse phase and direct it toward reorganization around a new and more desirable attractor (Westley et al., 2007). Social innovation is also concerned with the front loop phase of the adaptive cycle in that the front loop represents incremental innovation in which the new direction of the system is strengthened and solidified (Biggs et al., 2010).

Transformative change through social innovation needs to have impact across scales and between scales, known as scaling up and scaling out. Generally, the success of a social innovation to scale up and out and cross system boundaries means stronger transformative change in a system (Moore & Westley, 2011). Social innovations also require agency of system entrepreneurs who are able to carry out the actions that lead to scaling up and out (Moore & Westley, 2011).

In practice, it is necessary for social innovators to adopt a complex systems lens when evaluating a problem or situation (Westley et al., 2007). Much like an ecosystem and resilience approach, this requires understanding a system through identification of complex system components such as relationships between components in order to better understand the system dynamics (Westley et al., 2007). A complex systems lens also necessitates an appreciation for uncertainty and this

applies to the process of social innovation. Understanding that things are out of our control and that outcomes cannot be guaranteed is often emphasized in the social innovation literature (Westley et al., 2007).

Solutions to environmental challenges require sustainability transitions (see section 2.1.4 Conclusions: Transitions to Sustainability). Transitions describe the change from one stable state of a system to another stable state. A transition is the point at which a system passes a threshold and switches from one attractor to another (see section 2.2.3.1 The Ecosystem Approach) (Westley et al., 2011). Transitions to sustainability also implicate resilience and social innovation literature, as transitions can be a result of radical innovations in which the back loop phase of the adaptive cycle pushes the system to a new attractor resulting in a new stable state represented by the front loop (Westley et al., 2011).

2.2.4 Conclusions: Systems Approaches for Organizations

In a complex situation involving social ecological systems, a systems perspective, whether through an ecosystem approach, resilience thinking or social innovation, is a helpful tool to better understand a problem and its possible solutions. A systems lens can provide insights into a situation that a linear scientific approach cannot (Waltner-Toews et al., 2008). Each of the approaches has commonalities with one another, calling for a complexity perspective of the system through a system description exercise. They each advocate for a participative and multidisciplinary approach to understanding a problem and implementing solutions. Finally, they each respect that complexity in systems necessarily means that there will always be a degree of uncertainty. A framework comprised of elements from each of the ecosystem approach, resilience thinking and social innovation approaches should help to frame an analysis of this research that leads to a better understanding of system dynamics and relationships between

system components, and reveals opportunities within the system for contributing to change. However, to just describe the TRCA as a system is not enough; it is a specific type of system referred to as an organization. Systems thinking and systems concepts have a strong presence in the organizations literature, and are used to help understand organizational change, learning, identity and image (Senior & Fleming, 2006; Senge, 1990). These concepts are discussed in the following (and final) section of the literature review, 2.3 Organizations.

2.3 Organizations

The motivation for the partnership project, as explained in section 1.1: Introduction to the Research Question, is to address the declining health of the regional watersheds by pursuing sustainability strategies beyond the traditional scope of the TRCA's activities. It was identified early in the project that the TRCA is unsure of how their stakeholders view them, and it was decided that this would be important information to understand if the TRCA wanted to move forward as an organization addressing sustainability concerns, as it requires change at the organizational level (which TRCA has already begun). To properly assess the organizational changes (current and future) of the TRCA, an understanding of organizational change, learning, image and identity and related concepts is necessary.

So far, this chapter has introduced systems thinking concepts and approaches and an overview of sustainability and sustainability transitions in order to provide a background for a framework of analysis. These next sections go beyond a complex systems lens to explore what characterizes organizational change and learning. The following sections provide an overview of organizational change, organizational learning and organizational identity and image and provide evidence that an understanding of stakeholder perception may be important to an organization that is attempting change or transformation as well as just to organizational success in general.

Organizational identity and image can determine an organization's reputation and legitimacy, relating to a strong impact on its ability or opportunity to engage in successful organizational actions and organizational change. Stakeholders are a part of this dynamic, as they interpret and construct the organization's image and therefore will have an effect on organizational direction and change. These ideas will be discussed in the order mentioned, and are intended to provide specific concepts to apply to an analysis of the system description constructed from the data.

2.3.1 Organizational Change

Organizations are often examined through a complex system lens. Senior and Fleming (2006) describe an organization as, "a system of interacting subsystems and components set within wider systems and environments that provide inputs to the system and which receive its outputs" (p. 5). The influence of the wider systems and environments can be political, socio-cultural or economic and this external operating environment can influence or trigger organizational change (Senior & Fleming, 2006). Organizational change is defined as a perceived difference in some aspect of an organization that shows itself over a period of time (Poole & Van de Ven, 2004).

Change in organizations can occur at all scales, from the very small, like changes in a specific product or process, to the very large like a change in vision or strategy (Mintzberg & Westley, 1992). Organizational change can be planned or unplanned and can happen in a hard systems context or a soft systems context (Senior & Fleming, 2006).

Organizational change, at the broader theoretical level, can be characterized by either a variance approach, which assumes clear causality between system components and a quick process of change that is easily observed, or a process approach, which accounts for more dynamic system processes and uncertainty due to a context of complexity (Poole, 2004). These approaches to

study can be visualized by modeling techniques that are similar to constructing a complex system description (Poole, 2004, p. 14-16).

There are many specific approaches to understanding processes of organizational change. For example, organizational development, inspired by the work of Lewin (1948), has become one of the most popular approaches to planned organizational change (Boje et al., 2012). The organizational development approach is indeed useful for highly strategic or private sector organizations, but it has been argued that it falls short in the context of public sector organizations because of the bureaucratic structure that creates multiple managers and decision makers, a sensitivity to accountability, a diversity of conflicting interests and the need to appease various funding sources (Senior & Fleming, 2006). One approach, suggested by Mintzberg and Westley (1992) views organizational change as categorized in three approaches, procedural planning, visionary leadership and inductive learning (p. 43). Procedural planning refers to formal, planned change that is often implemented top-down from higher management. Visionary leadership is an informal approach to change in which a leader of an organization conceives a new vision for the organization that is focused and unambiguous, while the implementation of the visionary change is often emergent and informal due to possible resistance from other parts of the organization. Inductive learning is the least formal and most emergent approach to change where a change can come from anywhere in the organization and have unpredictable uptake by various scales (Mintzberg & Westley, 1992). These change approaches are not exclusive to each other and can occur at different times in an organization's life or even together. Even more specific to these approaches of change are what the authors have determined as stages of organizational change which are outlined below:

- Stage of development: During the shaping of a new organization when there is little stability and many aspects of the organization are constantly changing.
- Stage of stability: The main aspects of the organization, such as vision, are cemented and there is less change and more stability.
- Stage of adaptation: The organization is still relatively stable, but responding to environmental changes in small ways but not profoundly changing.
- Stage of struggle: The organization must attempt to reinvent itself due to changes in the environment that necessitate a new vision or direction, often this stage is accompanied by resistance or challenge.
- Stage of revolution: Can occur over a long period of time and be emergent or planned, but follows a stage of struggle and is characterized by a new vision being implemented. (Mintzberg & Westley, 1992, p. 47-49).

Regardless of the approach taken to interpret organizational change, Poole (2004) argues that there are common fundamental concepts present that influence all types of organizational change. He describes these concepts as people, space and time (Poole, 2004). The issue of people refers to the complex role of human agency in change processes. The concept of space refers to understanding the relationships between system scales and hierarchies and how this influences organizational change. Time refers to the temporal boundaries and scales of organizational change and is itself a necessary component of the process as organizational change is demonstrated over time (Poole, 2004).

The broadness of Poole's fundamental concepts demonstrates the vastness and diversity of the issues and factors that have an effect on organizational change and even the author himself admits that these concepts are, "fundamental to any human science" (Poole, 2004, p. 16-17).

Therefore it seems that for the purposes of this research, considering especially the parameters of the data collection, it is a reasonable approach to selectively focus on only certain concepts and factors of influence on organizational change, although I understand there are many potential influences. Faber (2002) argues, through an analysis of various case studies, "that processes of change have five key constituting features: identity, communication, narratives and images, discordance, and reconstitution." (p. 26). It is these concepts, specifically organizational identity and image, which will be expanded on in the rest of this chapter.

2.3.2 Organizational Learning

While the intention of this research is not to evaluate the TRCA for its potential as a learning organization (as this would require much more intensive methods and a more specific focus on internal structure and process of the organization) it is important still to briefly explore this area of organizational change literature. This is for two reasons; learning capacity of an organization can contribute to more successful change processes, and organizational learning stresses the importance of a systems thinking approach as a key framework for establishing a learning organization (Senge, 1990).

Senge (1990) describes organizational learning as organizations accessing their potential through "developing their own capacities, that is, learning." (p. 16). A learning organization begins with the ability to view systems as complex, that is that all component parts of a system are interrelated and produce emergent behaviour, rather than believing systems are made of unrelated components (Senge, 1990). This forms the basis to be able to create a culture of 'learning' at all scales of an organization in order to increase the capacity of an organization to respond successfully to its environment, to innovate, to successfully perform their organizational responsibilities and move toward their future (Senge, 1990).

The five proposed disciplines of organizational learning include systems thinking, personal mastery, mental models, building a shared vision and team learning (Senge, 1990). It is these disciplines and skillsets that an organization should work toward in order to increase learning capacity. The most important one, which Senge labels 'the fifth discipline', is implementing a systems thinking perspective, without this the other disciplines are directionless (Senge, 1990).

2.3.3 Organizational Identity and Image

> In general, we believe that it is necessary to consider organizational identity when engaging in any type of organizational change and in management in general … considering the organization's identity prior to taking action will improve the chances for a successful outcome (Hatch & Schultz, 2004, p. 2-3).

Hatch and Schultz (2004) express the importance of understanding an organization's identity especially in the context of change or organizational action. There are many reasons for this that will be explored throughout this section, but it is necessary to begin by establishing an understanding of organizational identity and its counterpart, organizational image.

In their foundational piece, Organizational Identity, Albert and Whetten (1985) propose a definition of organizational identity that explains the concept as a way in which organizations define themselves. An organization's identity is distinctive, in that it is different from other organizations, it is temporal, meaning that it has lasted over a period of time, and it expresses the organization's central character or 'essence' (Albert & Whetten, 1985). The authors make an important observation about organizational identity being similar to individual identity in that there is always a duality to identity formation, which is the way identity is internally constructed and the way it is externally expressed (Albert & Whetten, 1985). The authors suggest certain implications when applying this idea to the organizational context. They argue that a wide

discrepancy between the way the organization views itself and the way it is viewed by an external audience can harm the organization's health because if stakeholders view the organization as a much different entity than the organization thinks of itself, it can be difficult to attain support or resources from stakeholders, which could threaten the organization's existence (Albert & Whetten, 1985). The way an organization expresses its identity to outsiders is often much more positive than the way the organizational identity is perceived by members inside the organization (Albert & Whetten, 1985). They also suggest that organizational identity is partially formed by a process of comparison and reflection to other organizations over time (Albert & Whetten, 1985). They suggest critical points in an organizational life cycle where identity is salient and important; at beginning or the formation of the organization, if the organization loses something central to its identity, if the organization accomplishes all that it set out to do in the first place, during a period of rapid growth or a period of decline and if there is a change in organizational structure (Albert & Whetten, 1985). Each of these events represents a period in an organization's life cycle where there is significant restructuring (Whetten, 2006). Organizational identity is also formed through complex interactions between the organizational actors (managers) and their stakeholders in which the dynamics that emerge in these interactions help define an organization's identity (Scott & Lane, 2000).

An important argument of Albert and Whetten (1985) is that organizations can have dual identities, and these identities often may emerge through the natural evolution of the organization. They categorize identities in a general sense as either normative or utilitarian, a normative organizational identity expressing a kind of social or cultural legitimacy (i.e. a church or school), and a utilitarian organizational identity existing and developing based on economic rules (i.e. a business or corporation) (Albert & Whetten, 1985).

Whetten (2006) revisits this seminal piece decades later and adds to their definition of organizational identity. He restates the definition; "The concept of organizational identity is specified as the central and enduring attributes that distinguish it from other organizations" (Whetten, 2006, p. 220). These attributes are referred to as 'organizational identity claims' and they are represented in organizational discourse in various ways (Whetten, 2006). Distinguishing attributes are what differentiate an organization from other organizations and are often represented in the discourse as how an organization ought to act. This can be represented comparatively, where an organization acts a certain way because it aligns with what their type of organization does, and historically, where an organization acts a certain way because it aligns with their historical path or trajectory (Whetten, 2006). An organization with strong distinguishing attributes can be harmed if they are perceived as acting "out of character" (Whetten, 2006, p. 223). Central attributes are reflected by an organization's "core programs, policies and procedures" and enduring attributes are reflected as commitments of the organization that are "irreversible" (Whetten, 2006, p. 222). These attributes are represented in the discourse by members of the organization when faced with a challenge to the organizational identity, or when the organization is experiencing a transition or difficult circumstance and central and enduring attributes are referenced to help guide decisions. Identity-referencing discourse is also used when the nature of an organization gives it a hybrid identity (Whetten gives the example of a family business) and there are multiple perceptions of its identity, giving way to multiple competing interests and demands (Whetten, 2006, p. 227).

The three concepts that make up the definition of organizational identity (central characteristics, distinctiveness from other organizations and an enduring quality) have generally been accepted in the literature (Gioia et al., 2013). However the work of some authors has challenged the third

notion, that an organization's identity must endure over time, with the argument that organizational identity exhibits a changing behaviour (Gioia et al., 2013; Dutton & Dukerich, 1991). Organizational identity is not so stable that it endures over long periods of time, only changing slowly as the organization changes, but it is better described as having continuity, that is responding to change more quickly through adaptation (Gioia et al., 2000). Change in organizational identity can be influenced by external forces acting on the organization, which relate to its organizational image (Gioia et al., 2013). Gioia et al. (2013) note that organizational identity can be emergent, and change to identity may not be intentional in these emergent circumstances where organizations are responding to changes in an external or internal environment. They note that there has been little research in this area of emergent organizational identity change (Gioia et al., 2013, p. 141-143).

Organizational image is closely related to identity, but there are several interpretations of what organizational image means. Organizational image is understood in two dimensions; either internal to the organization, which can mean what members think of their organization or what members think outsiders think of their organization (Dutton & Dukerich, 1991), or external to the organization (i.e. how outsiders view the organization) (Gioia et al., 2014, p. 5). Organizational image can therefore be interpreted as how an organization is perceived, either internally or externally, with this perception relating to how the organization communicates its image (Alvesson, 1990). Image is a dynamic conception as its complete picture is shaped both by how an organization intentionally presents its image and how the organizational audience or outsiders receive and interpret the organization's presentation of image (Ginzel et al., 1993). Organizational reputation, to be discussed in the following section, narrows the concept of image

even further, dealing specifically with outside observers' judgments or understandings of a particular organization (Lange et al., 2011).

Organizational image can be important to an organization if the actors who hold a perception of the organization are significant or influential to the organization's actions (Alvesson, 1990). In a modern world, the significance of the organization audience and their perception of an organization's image has become increasingly important to organizations (Gioia et al., 2014). Events that provide opportunity for an organization to either enhance its identity or events that threaten an organization's identity are heavily influenced by the organization's image, which the organizational audience can significantly affect (Ginzel et al., 1993). Organizational actions are also shaped significantly by identity and image. As Dutton and Dukerich (1991) demonstrated with their case study of the New York City Port Authority, members' interpretations of organizational identity could influence how they interpret issues and their understanding of organizational image will often guide how they respond those issues through action (p. 542).

Organizational identity and image and related concepts are important to understand when an organization is making a choice for "a course of action that could be considered out of character by a legitimating audience" (Whetten, 2006, p. 226). The next two sections will expand on the power that a 'legitimating audience' might hold over an organization through the concepts of organizational reputation and legitimacy.

2.3.3.1 Organizational Legitimacy

Organizational legitimacy is defined as, "A generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions (Suchman, 1995, p. 574). Of some importance here is the concept of legitimacy as a perception or assumption. This means that organizational legitimacy,

similar to organizational image (Ginzel et al., 1993), is a representation of how an audience views the organization. This means that the legitimacy of an organization is subjective to its audience, but it is "possessed objectively" among those observers (Suchman, 1995, p. 574). Organizations will generally seek legitimacy for purposes of external support. Organizations perceived as legitimate will persist because audiences will interpret their actions as worthy and appropriate, thus supporting their continued existence. To some organizations this type of support is far more important for their continued actions, whereas other organizations need less support and approval from audiences and so perceived legitimacy from an audience is less important (Suchman, 1995). For an organization such as the TRCA, that receives support from stakeholders and has regular interactions with stakeholders, this type of legitimating support is very important. Perceived legitimacy has been demonstrated as relating to increased support and organizational successes (Diez-Martin et al., 2013). There are three distinct types of organizational legitimacy as defined by Suchman (1995) and these are: pragmatic legitimacy, moral legitimacy and cognitive legitimacy (p. 577).

Pragmatic legitimacy refers to stakeholders' perception of how well the actions of an organization reflect their interests. This is expressed through exchange legitimacy (how much pragmatic value does the organization hold to certain stakeholders), influence legitimacy (whether the organization furthers their larger interests) and dispositional legitimacy (interpreting the organization as having values that reflect those of the stakeholder) (Suchman, 1995).

Moral legitimacy is in many ways the opposite of pragmatic legitimacy in that it is not judged on the value the organization adds to stakeholder's own interests, but rather how well the organization adheres to and reflects the norms and values held by stakeholders (Suchman, 1995). It is therefore a "normative evaluation" of an organization by stakeholders (Diez-Martin, 2013).

There are four types of moral legitimacy: consequential legitimacy, procedural legitimacy, structural legitimacy and personal legitimacy. Consequential legitimacy refers to the perceived effectiveness of an organizations actions and the quality of its outputs. Procedural and structural legitimacy of an organization is judged by the degree of perceived acceptability of its methods (e.g. western science versus another worldview) and its structure (how it acts as a whole). Personal legitimacy is judged on the level of charisma of organizational leaders and is less commonly applied (Suchman, 1995).

Cognitive legitimacy refers to the perceived need for an organization in the larger societal context. Cognitive legitimacy is granted to organizations that are perceived as providing a core or important function to such an extent that it is seen by stakeholders as unthinkable to consider any other alternative organizations to perform this function (Suchman, 1995).

These three forms of organizational legitimacy can be attributed to an organization in different combinations, but pragmatic is often easier to attain than moral or cognitive. While the three types can coexist among perceptions of an organization, they may come into contention with each other when an organization is in experiencing change (Suchman, 1995).

Similar to identity and image, organizational legitimacy can apply to both internal and external aspects of an organization. Legitimacy is attained internally by an organization through members who support and organize around a common vision reflected by the organization (Drori & Honig, 2013). However legitimacy is primarily defined by acceptance (Deephouse & Carter, 2005) and as such is an externally focused endeavor with stakeholders determining the legitimacy of an organization's external image.

Maintaining legitimacy is difficult, especially because it involves a relationship with stakeholders who are not always static or homogenous in their expectations of an organization,

but it is important to maintain legitimacy because there are always influences that can threaten an organization's legitimacy (Suchman, 1995). Maintaining legitimacy involves strategies to perceive change, that is to have a current and accurate understanding of their environment and of the diversity of interests of their audience or stakeholders, and strategies to protect accomplishments, meaning to ensure that the organization is operating with predictability, avoiding scrutiny over new operations and understanding and gathering supportive stakeholders (Suchman, 1995). Legitimacy can be lost when managers "become enmeshed in their own legitimating myths and have failed to notice a decline in support" (Suchman, 1995, p. 597).

Much of the research on organizational legitimacy application is focused on private sector organizations like businesses and corporations to demonstrate or analyze the acquisition or assessment of legitimacy (e.g. Diez-Martin et al., 2013; Drori & Honig, 2013). This is an important consideration when applying the concepts to analyze other types of organizations, such as the TRCA.

2.3.3.2 Organizational Reputation

Organizational reputation is a very similar concept to organizational legitimacy, however it differs subtly in its meaning and how it is evaluated; therefore it is worth noting in this review. Lange et al. (2011) describe organizational reputation as the idea that:

> Over time an organization can become well-known, can accrue a generalized understanding in the minds of observers as to what it is known for and can be judged favourably or unfavourably by its observers (p. 154).

They note that the definition of organizational reputation centres on three themes: being known (referring to awareness of the organization by stakeholders), being known for something (evaluation based on a specific attribute) and having a generalized favourability among

stakeholders (judged on the basis of multiple attributes of the organization) (Lange et al., 2011). Reputation is about comparison rather than acceptance and can be evaluated on any attribute, not just through the pragmatic, moral and cognitive notions described in the previous section (Deephouse & Carter, 2005). Organizational reputations are not static and can be "reconstituted and reconstructed as new information comes to light for observers" (Lange et al., 2011, 178).

A good reputation leads to better economic outcomes for organizations as well as increased stakeholder support for organizational actions. Internally, it can also lead to being more attractive to potential employees and potential partnering organizations. However, a good reputation can also lead to higher expectations of an organization by its stakeholders, leading to "especially intense scrutiny" of new or unpopular actions (Lange et al., 2011, p. 173).

Organizational reputation is sometimes difficult to evaluate based on the complexities that are present in the system, namely the diversity of observers that are considered stakeholders of any one organization. The differences between stakeholder groups will "dictate and affect their interpretations and perceptions of organizational actions" (Lange et al., 2011, p. 180). This relates to the idea that reputation is an almost entirely observer focused concept and that stakeholders are the main determining factor of organizational reputation, exemplified by Mahon and Wartick (2003) when they describe organizational reputation as, "formed not only over time, but also over time as a function of complex interrelationships and exchanges between and among stakeholders and the organization in different contexts" (p. 23). Organizations are especially dependent on stakeholders for their organizational reputation if they are not operating in a capitalist or market based system (Mahon & Wartick, 2003).

Due to the importance of stakeholders as evaluators and influencers of organizational reputation, legitimacy, identity, image and as often key actors in complex socio-ecological systems

involving organizations, the final section of this chapter will give a brief explanation of the 'stakeholder' as it relates to and affects the organization.

2.3.4 Stakeholders

The concept of stakeholders originates in business literature, most notably from Freeman (1984) who wrote about stakeholders in the context of their management by business organizations. His concept of stakeholders was the basis for his theory that businesses should consider the interests of individuals or groups beyond just their shareholders (Mainardes et al., 2011). The term has become popular among all types of organizations and is applied in a variety of contexts and as Mainardes et al. (2011) note, "there is no single, definitive and generally accepted definition" (p. 228). In a very basic interpretation, a stakeholder is a person or group that can have an effect on or be affected by a particular organization (Mainardes et al., 2011).

2.3.4.1 Stakeholders and Organizational Change

For the purposes of this research, the concept of stakeholder as used in the business literature usually associated with stakeholder theory is not quite as relevant. However the general idea of a stakeholder as a person or group who can impact an organization is highly relevant to organizational change because key stakeholders have the ability to support or resist change processes of organizations (Peltokorpi et al., 2008). This is where stakeholder identification and stakeholder resistance management is useful in order to help managers anticipate the level of resistance they might experience when attempting to implement a change project. These efforts can also help increase the acceptance of change initiatives by identifying the 'salient stakeholders' who could be more easily motivated toward support of the change, as well as simply introducing the idea of change so as to build a consensus and decrease distrust among stakeholders for the change project (Peltokorpi et al., 2008, p. 430-431).

2.3.5 Conclusions: Organizational Concepts and Change

The 'Organizations' section of this review has attempted to link the ideas of organizational learning and change to organizational identity and image, demonstrating how identity and image can affect an organization's direction and actions (Hatch & Schultz, 2004). Organizational legitimacy and reputation then become important concepts for identity and image, and thus for organizational change, as legitimacy and reputation contribute to the construction of identity and image (Whetten, 2006). Throughout these conceptual linkages, the concept of stakeholders is a commonly occurring factor. Stakeholders influence the perceived legitimacy and reputation of an organization and therefore influence its identity and image and eventually its capacity for pursuing successful organizational change.

2.4 Conceptual Framework

The literature review has revealed certain concepts that will be useful for analysis of this research data. The analysis of data will frame the results using complex systems concepts and then expand on this using the concepts from the organizational literature. Organizations reflect similarities to systems and system change, and systems approaches reveal new ways of examining a situation that suggest novel solutions to problems (Kay, 2008). Organizational change and organizational life cycles present similar patterns to complex adaptive systems in that organizational change can happen at multiple scales and that complexity in organizations can result in uncertainty (Poole, 2004). Stages of organizational change, proposed by Mintzberg and Westley (1992), are similar to systems approaches that describe stages of stability and stages of release and reorganization (Holling, 2001). Systems approaches (as described in section 2.2.3 Approaches for Understanding Complex Systems) require a system description (Kay & Boyle, 2008) to reveal different connections between components and resulting behaviours of a system.

In this research, the data will contribute to the beginnings of the system description of the TRCA from the point of view of relevant stakeholders. There are possible feedback loops and attractors that describe the structure of stakeholder perceptions and interactions with the TRCA and these are presented in the analysis (see Chapter 6: Analysis). The systems concepts that are used to help describe the system (feedback loops, attractors, etc.) are contextualized using organizational concepts. System behaviours such as feedback loops may describe reinforcing patterns of stakeholder interactions that affect the TRCA's organizational reputation. Stakeholders are important actors in a system, influencing an organization's reputation and legitimacy and thereby affecting the health and ability of the organization to successfully move forward. A systems approach will help identify the implications of these actors in the TRCA system. Combining systems thinking concepts with organizational concepts should reveal novel insights about the way stakeholder perceptions affect the organizational actions of the TRCA. The following diagram provides a visual representation of a conceptual framework based on the literature.

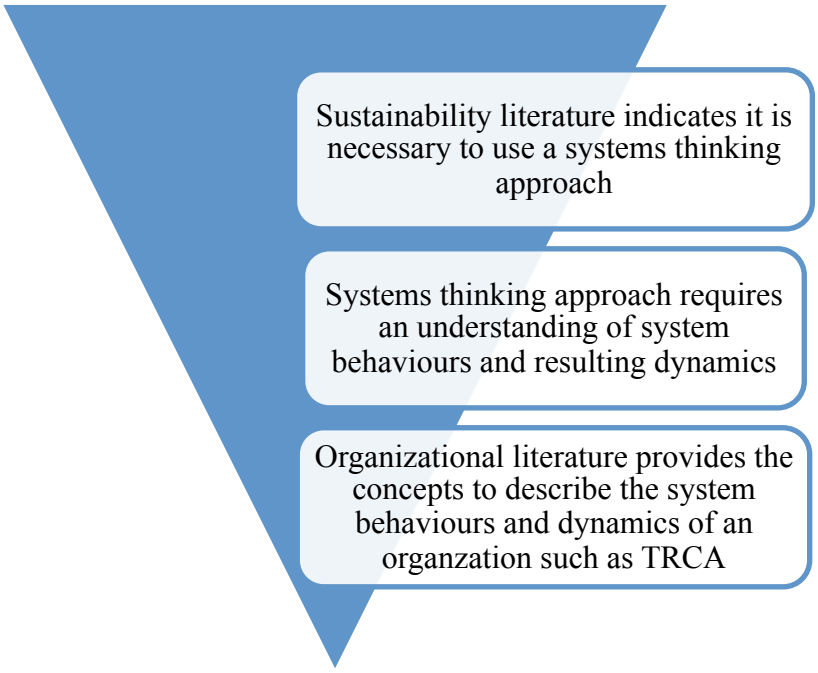

Figure 3. Conceptual Framework

Chapter 3. Case Study: Toronto and Region Conservation Authority

This research uses the case study of the Toronto and Region Conservation Authority (TRCA) to examine organizational change toward sustainability from a systems thinking perspective. Because of the participatory action research approach that was taken from the beginning of this project (to be discussed further in the following chapter, 4.0 Methods), the TRCA and the researchers both chose to be involved in this case study. The research has been collaboratively designed with the research team and the TRCA practitioners who are involved in the project, meaning the TRCA practitioners have taken an active role in their own case study. The research team is made up of members of the TRCA and an academic team from University of Waterloo. For further information about the members involved in this project, please see section 3.4.4: The Partnership Project, in this chapter.

This chapter will begin with an overview of case studies as a method of qualitative research. The case study specific to this research, the TRCA, will then be introduced and described so as to give the reader a contextual understanding of the research. The contextual explanation will begin with an introduction to the TRCA's operating environment, Toronto and the Greater Toronto Area, followed by an explanation of the broader context of conservation authorities in southern Ontario. This chapter will then examine the TRCA as an organization in detail, followed by a brief explanation of the partnership project that instigated this research.

3.1 Case Study Research

A case study approach is often used when research topics are asking 'how' or 'why' questions (Yin, 2009). While this research is directed by a 'what' question (what are the perceptions of the TRCA's organizational image?) it is followed by a 'how' question (how might these perceptions affect the TRCA's capacity for organizational action and change?). The research questions

address contemporary events, do not require the control of behavioural events, and require the use of interviews to gain evidence about current perspectives (Yin, 2009). All of this, in addition to the participatory action research approach with a specific organization, as well as the common use of case studies for study of organizational change, makes a case study an appropriate way to address the research topic (Yin, 2009). Robert K. Yin (2009) also describes case studies as being appropriate in evaluation research, "… the case study strategy may be used to *enlighten* those situations in which the intervention being evaluated has no clear, single set of outcomes" (Yin, 2009, p. 20). In this research, an exploratory approach, which uses a new perspective to analyze a situation, is needed to evaluate the TRCA's changing direction as an organization (Robson, 1993). A systems thinking framework led to the decision that it is important to analyze the TRCA from a stakeholder perspective, as it is unclear to the organization how stakeholders perceive their actions and new directions. Case studies are an appropriate method for exploratory research (Robson, 1993). This case study is of a single-case, the TRCA. The reasoning for this is partially the opportunity that arose to study the TRCA, and also because of the uniqueness of the TRCA context, being a conservation authority that is very different in size, scale, focus, and context (primarily urban) than its other neighbouring conservation authorities. Both of these reasons make a single-case design justifiable (Yin, 2009). This case study is also being researched along with the use of other methods (participatory action research), described in the following chapter, 4.0 Methods. While this thesis focused on a specific subset of the case for analysis, there are other researchers on the project who are analyzing other aspects of this case (Yin, 2009).

3.2 Toronto and the Greater Toronto Area

This section introduces the geographical context that TRCA works in which includes the city of Toronto and the surrounding Greater Toronto Area. The following two sections describe the environment, both social and ecological, that the TRCA interacts with through its work in these areas.

3.2.1 Ecological Environment

The TRCA's geographical jurisdiction is defined by watershed boundaries of nine different watersheds. The following is a list of key land features and geographical boundaries that define the context in which the TRCA works, including a brief explanation of each.

- Watersheds: A watershed is usually a river valley, or any space where water drains into larger bodies of water such as wetlands, rivers or lakes (Conservation Ontario, 2013). There are nine different watersheds that fall within the TRCA's jurisdiction. They are; Carruthers Creek, Don River, Duffins Creek, Etobicoke and Mimico Creek, Highland Creek, Humber River, Rouge River and Petticoat Creek (Toronto and Region Conservation Authority, 2015). As previously mentioned (in Chapter 1: Introduction), the current state of the watersheds is in poor health and may continue to decline (Toronto and Region Conservation Authority, 2013). See figure 1 for a visual map of TRCA watershed boundaries.
- Lake Ontario*:* Lake Ontario, one of the five great lakes, provides the waterfront for the city of Toronto and is the body of water that many of the watersheds flow into. The TRCA has long been involved in various management programs at the lakeshore and has contributed to the improvement of its ecological health (McLean, 2004).

- Oak Ridges Moraine: The Oak Ridges Moraine is a land form of hills and ridges, formed by receding glaciers, that stretches parallel to lake Ontario one hundred and sixty kilometres from the Trent River to the Niagara Escarpment and performs an important function of dividing watersheds from those south of the Oak Ridges Moraine that drain into Lake Ontario and those north of the Oak Ridges Moraine that drain into Georgian Bay, lake Simcoe and Trent River (Oak Ridges Moraine Conservation Plan, 2001). The TRCA is part of the Conservation Authorities Moraine Coalition, a collaborative organization dedicated to improving sustainability on the moraine (Toronto and Region Conservation Authority, 2015). The Oak Ridges Moraine exists among a quickly urbanizing environment and requires protection from the Oak Ridges Moraine Conservation Plan (Hanna et al., 2007).
- Greenbelt: The Greenbelt Plan is a provincially mandated land use plan that refers to a stretch of connected areas of agricultural, heritage and ecologically significant lands within southern Ontario that are protected under the plan through varying degrees of protection from urban development (Ministry of Municipal Affairs and Housing, 2005).
- Whitebelt: The areas that are in between the greenbelt boundaries and the urban growth boundaries, that provide somewhat of a buffer to the protected areas of the greenbelt, are referred to as the 'whitebelt lands' (Tomalty & Komoroski, 2011).

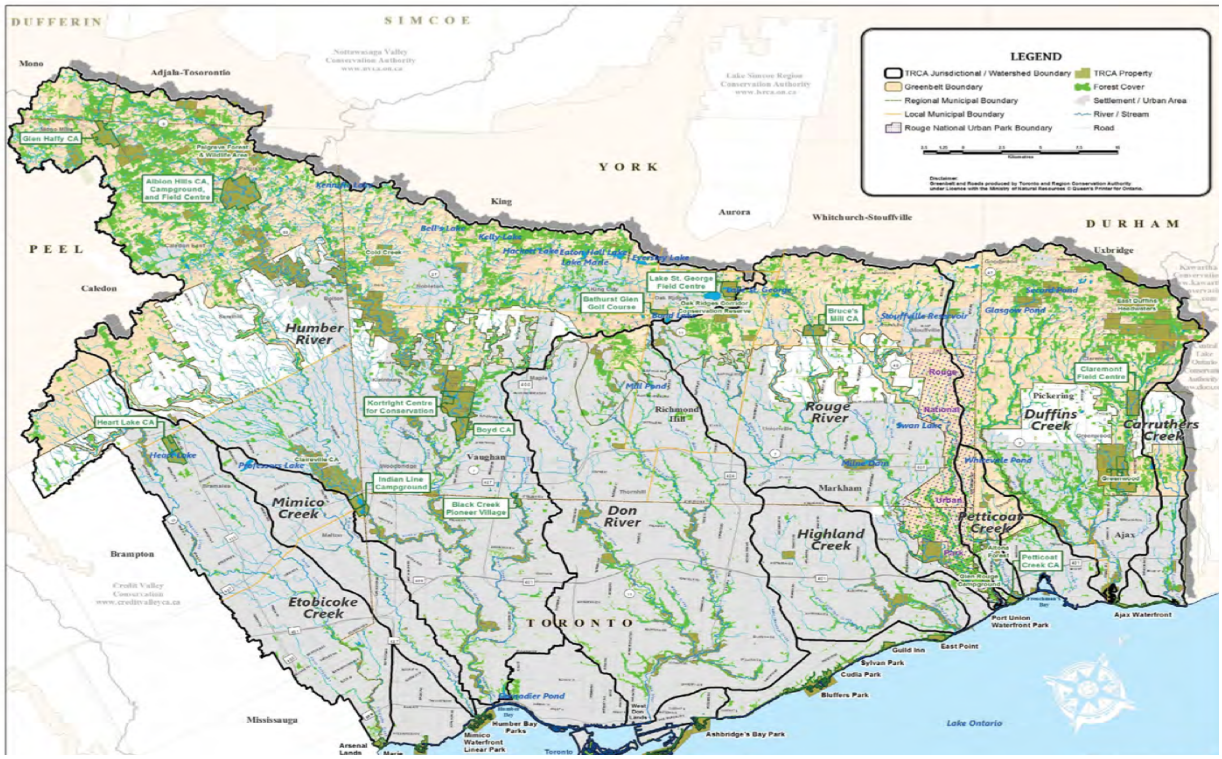

Figure 4. TRCA watershed boundaries (From TRCA Living City Policies document, 2014).

3.2.2 Social Environment

The TRCA's jurisdiction encompasses the city of Toronto and parts of its surrounding municipalities referred to as the Greater Toronto Area (GTA). This exists within the much larger boundary of the Greater Golden Horseshoe in southern Ontario. The following is a list of the social and political boundaries and issues in the TRCA's jurisdictional area including a brief explanation of each.

- City of Toronto: The TRCA boundaries encompass the entire city of Toronto, which includes a population of 2.8 million people making it the largest city in Canada (City of Toronto, 2015) The city of Toronto is bordered by Lake Ontario to the south.
- Greater Toronto Area (GTA): This includes the regions that border the city of Toronto to the north, east and west, which includes York, Durham, Peel and Halton regions, as well as the city of Toronto (GTA Regional Agricultural Working Group, 2009).

- Greater Golden Horseshoe (GGH): This area encompasses the City of Toronto, the GTA, and extends around Lake Ontario from Niagara region to Peterborough. It represents high population growth and development, a rapidly expanding economy and also an environmentally significant area containing land features like the Oak Ridges Moraine. Within its boundaries it also contains "abundant natural heritage features and prime agricultural areas" (Ontario Ministry of Infrastructure, 2006, p. 7). Similar to the Greenbelt and Oak Ridges Moraine, it also has its own provincially mandated growth plan, titled Places to Grow (2006).
- Municipalities: Municipalities are regions or areas within regions often defined by township boundaries. The municipalities within TRCA boundaries include York, Peel and Durham regions, the city of Toronto, the town of Mono and the township of Adjala-Tosorontio (Toronto and Region Conservation Authority, 2015).
- Demographics: The GTA is a growing area within the city and all regions, showing significant total increase in population of 49% from 1986 to 2006. The population is culturally diverse with 44% of the GTA's population in 2006 being made up of immigrants. Household incomes have been increasing since 1986, but the percentage of people living in low income has been steadily increasing, with most of this increase occurring in the city of Toronto (GTA Regional Agricultural Working Group, 2009).

3.3 Conservation Authorities in Ontario

Ontario's Conservation Authorities movement was initiated in the 1940s as a response to a global pattern of creating organizations to address and manage water issues (Mitchell & Shrubsole, 1992, p. 6). Conservation authorities were created with the main intention of regulating and managing floodplains (J.L. Ivey et al., 2006; 2004). The conservation authorities

traditionally work in the context of managing surface water, but in recent years are also becoming in involved in the management of groundwater (de Loë & Kreutzwiser, 2005). They are a unique governance structure that has been widely regarded in the literature as a successful approach to managing water resources and as an advanced achievement in conservation efforts (Shrubsole, 1996). The following sections define Ontario's conservation authorities in more detail including the watershed management concept and a brief explanation of the history of conservation authorities in the province.

3.3.1 What is a Conservation Authority?

There are thirty-six conservation authorities in Ontario (thirty-one in southern Ontario and five in northern Ontario) that are mandated by the *Conservation Authorities Act* of 1946 to, "ensure the conservation, restoration and responsible management of Ontario's water, land and natural habitats through programs that balance human, environmental and economic needs" (Conservation Ontario, 2015). This means managing watersheds for protection of natural space, engaging in watershed and subwatershed planning (de Loë et al., 2005), as well as managing watersheds to prevent flooding and erosion that would affect human settlement. Conservation authorities also hold responsibilities for providing opportunities for the public to experience the natural environment through recreational and educational activities (Conservation Ontario, 2015). Conservation authorities receive most of their funding through municipal levies, and they partner with municipal governments and other stakeholders, such as ENGOs, land developers, private landowners, municipal, provincial and federal agencies and others to deliver most of their programming within the watersheds. Conservation authorities are not-for-profit organizations and are governed by their boards of municipally appointed members (de Loë & Kreutzwiser, 2005), many of whom are also elected politicians (Conservation Ontario, 2015).

Conservation authorities are a governance model based on watershed boundaries, that is, the watershed is the "unit for management" (Mitchell & Shrubsole, 1992, p. 13). Each of Ontario's watercourses has a conservation authority responsible for its management (Crabbe & Robin, 2006). This is why a conservation authority's jurisdiction will often cross multiple political boundaries of townships and municipalities (Durley, 2007), as in the TRCA case. This can be an advantage in that a conservation authority can observe cumulative impacts to watersheds of decisions made by different municipalities (Maas & Wolfe, 2012). The watershed jurisdictional boundaries used by Ontario's conservation authorities were modeled after the watershed management approach of the Muskingum Watershed Conservancy District and the Tennessee Valley Authority (Mitchell & Shrubsole, 1992). The watershed management approach is explained in more detail in the following section.

3.3.2 Integrated Watershed Management

Integrated watershed management (IWM) is defined by Conservation Ontario as, "managing human activities and natural resources in an area defined by watershed boundaries aiming to protect and manage natural resources and their functions today and into the future" (Conservation Ontario, 2010, p. 4). IWM is a way of applying an integrated water resources management (IWRM) approach to the Ontario context through the formation of conservation authorities. IWRM approach is based on the following ideals:

> (1) the catchment or river basin rather than an administrative or political unit is the management unit; (2) attention is directed to upstream-downstream, surface-groundwater and water quantity-quality interactions; (3) interconnections of water with other natural resources and the environment are considered; (4) environmental, economic and social aspects receive attention; and (5) stakeholders are actively engagement in planning, management and

implementation to achieve an explicit vision, objectives and outcomes (Mitchell et al., 2014, p. 460).

IWRM is a governance process that integrates the ecological system with the human system in order to manage for health and sustainability of both systems through effective coordination (Jønch-Clausen & Fugl, 2001). IWRM also requires that the water body or "basin/catchment/aquifer" is the unit or boundary of management (Jonch-Clausen & Fugl, 2001, p. 503), however this is the preferred approach but not the goal of IWRM (Cervoni et al., 2008). In Ontario, the unit of management is the watersheds, hence the IWM approach of the conservation authorities. IWRM promotes an ecosystem approach through coordination of stakeholders and development of partnerships (Mitchell, 2006).

3.3.3 Historical Development

In the 1930s and 1940s, governments in the United States and New Zealand began implementing watershed-based approaches to manage land and water resources (Mitchell & Shrubsole, 1992). One in particular, the Tennessee Valley Authority, was an inspiration for the development of Ontario's conservation authorities (Mitchell & Shrubsole, 1992). The Tennessee Valley Authority was created in 1933 by the United States congress as a response to economic hardships in the areas along the Tennessee River and was based on regenerating the economy as well as addressing the flood problems that crossed multiple state borders (Kline & Moretti, 2014). The creation of Ontario's conservation authorities was inspired similar concerns of environmental degradation affecting the economy as well as returning employment for soldiers returning from the Second World War (J.L. Ivey et al., 2001). In 1944, a group of individuals from Ontario visited the Tennessee Valley Authority and the watershed-based model of management observed

on this trip was influential to the development of the Ontario conservation authorities two years later (Mitchell & Shrubsole, 1992).

The *Conservation Authorities Act* (1946; 1958) evolved from the Guelph Conference in 1941 that produced a report outlining the current resource management issues in Ontario (Krause et al., 2001), as well as the Ganaraska Report in 1943 (as cited in Mitchell & Shrubsole, 1992), which was a response to the Guelph Conference paper suggesting solutions in the form of conservation projects to address problems (Thomson & Powell, 1992). In 1944, a series of river valley conferences were held in southern Ontario to discuss approaches to conservation. The most famous of these, the London Conference in 1944 (as cited in Mitchell & Shrubsole, 1992), resulted in a number of resolutions calling for the need to create a conservation authority for Ontario (Mitchell & Shrubsole, 1992). The culmination of these events was the *Conservation Authorities Act* in 1946 that led to the creation of the conservation authorities in Ontario. While it was a provincially mandated act, municipal governments were required to initiate the creation of a conservation authority appropriate for their watershed(s) (Mitchell & Shrubsole, 1992). The powers given to conservation authorities by the act were related to conducting research, monitoring and controlling surface water flow for flood prevention, planting trees and acquiring lands through purchase for their mandated activities. The conservation authorities were created based on the following six principles outlined by Mitchell and Shrubsole (1992): the watershed as the management unit, local initiative (meaning a bottom-up approach and buy-in from local municipalities), the conservation authority acting as a provincial-municipal partnership, that a healthy environment is required for a healthy economy, a comprehensive and ecosystem-based approach, and cooperation and coordination with government departments and agencies (p. 12-19).

In the years since the *Conservation Authorities Act*, there have been different events that influenced the development of conservation authorities in Ontario. Regional governments that formed in 1969 added another layer of municipal governance and began to limit the power of conservation authorities with some arguing that the new regional governments should take over the responsibilities of the conservation authorities (Mitchell & Shrubsole, 1992). In the 1970s, provincial departments were reorganized to create the ministry of agriculture and food, the ministry of the environment and the ministry of natural resources. The ministries created challenges for conservation authorities as their mandates and responsibilities overlap creating the need for coordination. The conservation authorities are administered through these provincial ministries as well, creating further complexities (Mitchell & Shrubsole, 1992). Previously, the province of Ontario provided the majority of technical and financial support to the conservation authorities, but changes in the provincial government during the 1990s cut much of the funding for conservation authorities (Shortt et al., 2006) and shifted much of that responsibility to the municipalities at the local level (de Loë et al., 2002; Bullock & Watelet, 2006; Durley et al., 2003). Currently, the thirty-six conservation authorities in Ontario are represented by Conservation Ontario, a non-governmental organization that supports the network of authorities in various ways (Conservation Ontario, 2015).

3.4 Toronto and Region Conservation Authority

Toronto and Region Conservation Authority (TRCA) is one of the thirty-six conservation authorities in Ontario. It is one of the largest authorities when accounting for its staff and budget, as well as its jurisdiction that, while not the largest geographically, encompasses the highest populated city and metropolitan area in Canada. The following sections will provide a brief overview of the TRCA and its historical development as well as a description of the TRCA's

mandate as it is expressed in its Living City Policies (2014) and in the broader *Conservation Authorities Act.*

3.4.1 What is the TRCA?

The TRCA is a conservation authority that exists under the mandate of the provincial *Conservation Authorities Act*. Its jurisdiction is based on nine watersheds and includes the City of Toronto and the Greater Toronto Area (see sections 3.2.1 and 3.2.2 for a description of the watersheds and geographic and social context). The TRCA owns more than 40,000 acres of land and has more than 475 full time employees (The Toronto and Region Conservation Authority, 2015).

3.4.2 Historical Development

The Toronto and Region Conservation Authority was formed out of the provincial response to the destruction caused by Hurricane Hazel in 1954 (Michaels et al., 2006). The flooding of the Humber Valley region of Toronto was so severe that over eighty citizens lost their lives and many more were left homeless (McLean, 2004). This prompted the province to amend the current *Conservation Authorities Act* in 1956 to create the Metropolitan Toronto and Region Conservation Authority (MTRCA). Four authorities that were intended to serve the interests of eight different watersheds within the region of Toronto would represent the MTRCA. The authorities established were the Humber, the Don, the Etobicoke and Mimico, and the Rouge, Duffins, Highland and Petticoat Creeks (McLean, 2004).

In the early 1960s, the MTRCA created a flood control plan for all of the watersheds within metro Toronto. By 1976 the MTRCA had acquired more than fifteen thousand acres of the twenty-two thousand for flood control and had spent close to $81 million on the project, indicating great progress toward the goals of the flood control project (McLean, 2004).

Conservation areas also progressed during this time, increasing in popularity for public recreational use. The attendance at the MTRCA's conservation areas steadily increased until 1970 when attendance reached sixteen million visitors and revenue for the authority was almost $900,000. After 1970, attendance declined slightly which was beneficial for the conservation areas themselves as they had been heavily used throughout the past decade and needed some time for recovery. These conservation areas also became important for public education of environmental conservation (McLean, 2004).

In the mid to late 1970s, when the MTRCA began reviewing its flood control project, the organization decided to create a watershed plan which would bring all the MTRCA's projects together in a comprehensive way, uniting them under a universal goal of the authority. It was agreed that the primary goal of the MTRCA was conservation management of the watershed areas within the region (McLean, 2004). There were ten different programs that were made the focus of the MTRCA: flood control, erosion and storm control, storm water management, land acquisition, conservation land management, watershed recreation, Lake Ontario waterfront development, shoreline management, heritage conservation and community relations (McLean, 2004).

With the election of the conservative provincial government in the 1990s, the MTRCA became the Toronto and Region Conservation Authority (the TRCA). The TRCA also lost much of its provincial funding as a result of cuts by the new government in the mid-1990s (McLean, 2004). The TRCA had to find a new way to succeed as a conservation authority and this meant adopting a revised mandate and strategy (McLean, 2004). This is how the Living City business plan and The Valley and Stream Corridor Management Program (1994) were developed, and recently, The Living City Policies document (2014). The Living City Policies is the revised

version of The Valley and Stream Corridor Management Program and it acts as the main policy document for the TRCA, informing its roles, responsibilities and activities (Toronto and Region Conservation Authority, 2014). This is expanded on in the following section, which outlines the TRCA mandate according to The Living City Policies document, the *Conservation Authorities Act*, and the TRCA Living City Strategic Plan (2013).

3.4.3 TRCA Mandate

The TRCA's roles and responsibilities are outlined in several different documents. They are given mandated powers by the province through the *Conservation Authorities Act*. To view the specific list of mandated powers, please see Appendix 1. The TRCA has also outlined its roles in the Living City Policies document (2014) and its strategic directions in their 10-year strategic plan, Building the Living City (2013).

The *Conservation Authorities Act* grants powers to conservation authorities under several sections of the Act. In the most recent version of the Act, section 21 describes the powers granted to authorities and section 28 describes the regulatory powers of each authority within its jurisdiction (2011). Under the Act, the TRCA has the power to control and manage waterways "to prevent floods or pollution" including building structures such as dams, to acquire lands and enter into agreements with owners of lands, as well as agreements with individuals for any purposes pertaining to carrying out a project and to collaborate with organizations and government departments or ministries. The TRCA is also mandated the power to plant trees, to initiate research or study pertaining to watersheds and to use lands for recreational purposes such as parks, and charge fees for use of these areas (Government of Ontario, 2011). The TRCA is also mandated, under section 28, the power to regulate lands within its jurisdiction by restricting use of water in water bodies, prohibit or regulate any proposed changes in water courses or

development that might have an effect on flooding and erosion, and to appoint officers to enforce these regulatory powers (Government of Ontario, 2011). These mandated responsibilities and powers make up what is referred to in this paper as traditionally mandated or core-mandated functions/responsibilities. The emphasis is on watershed management and protection and regulation. However, the TRCA performs many other functions outside of these core-mandated responsibilities, expressed by their Living City Policies document and their 10-year Strategic Plan.

The Living City Policies document is an updated version of the Valley Stream and Corridor Management document that was informing the TRCA's policies previously, and represents some changes and newer actions in the organization (as previously discussed in Chapter 1: Introduction). The Living City Policies document is based on the vision articulated in the 10-year strategic plan. The vision, called the Living City vision, is expressed as: "A new kind of community – the living city – where human settlement can flourish forever as part of nature's beauty and diversity" (Toronto and Region Conservation Authority, 2013). The Living City Policies document outlines a number of policies for sustainable communities based on nine themes. In the document, the nine themes are expressed in one statement as:

> "Combatting the potential impacts of climate change through the promotion of an ecological design approach to development that uses green infrastructure, green buildings, near-urban agriculture, energy, and sustainable transportation to plan and build sustainable communities. These are further enhanced and supported by celebrating cultural heritage and fostering environmental education and stewardship" (Toronto and Region Conservation Authority, 2014, p. 6).

The TRCA interprets its work as a watershed agency as including all of these activities in order to address current issues facing the environment in their jurisdiction. These policies are expanded upon in the 10-Year Strategic Plan. In the plan, six 'leadership strategies' and six 'enabling strategies' are described to guide the actions of the TRCA into the next decade. The strategies are listed below:

Leadership Strategies:

1. Green the Toronto region's economy
2. Manage our regional water resources for current and future generations
3. Rethink greenspace to maximize its value
4. Create complete communities that integrate nature and the built environment
5. Foster sustainable citizenship
6. Tell the story of the Toronto region

Enabling Strategies:

7. Build partnerships and new business models
8. Gather and share the best urban sustainability knowledge
9. Measure performance
10. Accelerate innovation
11. Invest in our staff
12. Facilitate a region-wide approach to sustainability

(List from: TRCA Strategic Plan, 2013, p. 17).

The policies and strategies in both the Living City Policies document and the 10-Year Strategic Plan go beyond what is provincially mandated for the authority. Many of the policies and strategies do reflect the traditionally mandated roles of the TRCA, such as "manage our regional

water resources for current and future generations" while some seek to address sustainability directions articulated by the authority itself, such as "facilitate a region wide approach to sustainability", and "Green the Toronto region's economy". Taking on roles or responsibilities beyond their mandate is motivated by the TRCA's understanding of the issues facing the region as well as a motivation to address the declining health of the region's watersheds. The strategic directions reflect the idea that this should be addressed through policies that incorporate and focus on sustainability.

3.4.4 The Partnership Project

This partnership project is a collaborative research project between University of Waterloo, Queen's University and the Toronto and Region Conservation Authority. It is made up of a research team including academic members from University of Waterloo and Queen's University and practitioners at the TRCA. The academic members include a core group of two PhD students, one master's student and a faculty project leader. The research advisory committee is made up of a faculty member at Queen's University, three faculty members at University of Waterloo, and a group of three (and sometimes more) practitioners from the TRCA, including the organization's Chief Executive Officer. The research advisory committee acts as an academic and practical check on the research directions of the core group of researchers. The core group of researchers regularly communicates with the academic and practitioner members of the research advisory committee to ensure that the TRCA's interests are reflected in the research direction and that the research direction is academically sound.

The project is based on a systems approach to understanding the problem context. In response to the declining health of the watersheds they are mandated to protect, the TRCA felt that this was due to a 'sustainability implementation gap' where failures of programming or action are leading

to declining watershed health (Toronto and Region Conservation, 2013). They are pursuing an understanding of their role in this through this academic partnership. The partnership project is partly a reflection of the new directions of the TRCA and the organization's efforts to address problems of sustainability in ways that go beyond their mandated functions.

Chapter 4. Methods

This chapter explains the type of research (qualitative) that guided the choice of methods used to conduct this research and collect the data. It also outlines concerns about data validity and reliability. The explanation of the case study method used to specifically study the TRCA case can be found in the previous chapter, Chapter 3. Case Study: The Toronto and Region Conservation Authority.

4.1 Qualitative Research

The complex context associated with this research necessitates a qualitative research approach. Qualitative research is typically carried out when the researcher is gathering participants' interpretations of their social world (Snape & Spencer, 2003). It is well suited to the theoretical framework of this research (systems thinking) because it is often used to understand situations containing complexity and often involves, as Dawn Snape and Liz Spencer (2003) explain, "…mapping and 're-presenting' the social world of participants." (Snape & Spencer, p. 5).

4.1.1 Participatory Action Research

Participatory action research is a type of applied research that differs from other research approaches in the extent of the involvement of research subjects or organizations of study. As William Foote Whyte describes, in participatory action research, the communities, organizations or people being studied, "…Participate actively with the professional researcher throughout the research process from the initial design to the final presentation of results and discussion of their action implementations." (Whyte, p. 20, 1991). The benefits of a participatory action research approach are realized in practice, by potentially increasing the organizational learning capacity of the participating organization as a result of continuous learning instead of learning happening

only at certain points in the process, as well as the potential to lead to structural changes in the organization that help strengthen new changes for the future (Whyte, p. 40-42, 1991). Whyte (1991) proposes that participatory action research expands the strategies of social science research which helps lead to advances in theory (p. 53). He credits the use of a participatory action research approach with allowing for the conceptualization of a commonly studied research problem in a new way that led to the advancement of theory in a particular field (White, p. 43-54, 1991). Participatory action research is criticized however, in that it equates participation with effective representation and a fair or democratic approach, but often when it is applied as a research framework it serves to represent dominant interests that reinforce an existing power structure (Mosse, 2001). This is a relevant concern for this research case, and will be explored in context in section 4.5.1.1 Participatory Action Research and Ethical Issues of this chapter.

In conventional research approaches, research usually begins with a literature review and formulation of the research questions based on the literature. In participatory action research, the participating organization or community first defines the issues or problems they are facing, and then the literature review and the development of research questions can be informed based on the initial direction from the study participants (Whyte, 1991). At the beginning of this research project, participants from the TRCA were consulted in two different workshops (September 2012 and April 2013) on the identification of problems, issues and areas of concern within the organization and its operating space to help inform the researchers' directions and the research questions. This process was guided by the framework of a systems mapping approach, in which participants were part of creating different visualizations of the TRCA system (i.e. concept maps) in order to help identity and locate problems or areas of concern. Through these participatory systems mapping approaches, one of the stronger reoccurring themes was the

apparent importance of partner and stakeholder interactions in the TRCA's operations. As previously mentioned, the TRCA is heavily reliant on its partner and stakeholder relationships (mostly municipal governments) to provide TRCA with the funding to continue their mandated responsibilities and often to carry out projects beyond their mandate as well. Participants in the mapping workshops confirmed these important relationships through discussion and exercises. In the second iteration of the TRCA participant consultation at the April 2013 workshop, through the discussion and systems mapping exercises, it was revealed that there were certain opinions of how the TRCA is viewed by its various stakeholders. When prompted to provide evidence for these opinions it was revealed that the organization had never actually inquired into their stakeholders' perception of them. This was then discussed as an important area of inquiry for the organization and informed the research questions of this thesis after an iterative process of reflecting, investigating and refining the questions.

The participatory action research approach did not stop at the formulation of the research questions. It continued throughout the entire process of carrying out this research, which is what the approach is supposed to do (Whyte, 1991; McIntyre, 2008). Further application of participatory action research strategies will be evident below in discussion of how the interview questions were formed and how the data were analyzed.

4.2 Data Collection Methods

The main data collection method used was the qualitative semi-structured interview. This method was used to gain detailed insight from participants about their perceptions of the TRCA. The following section explains the use of semi-structured interviews as the primary data collection method.

4.2.1 Qualitative Semi-Structured Interviews

In qualitative research, as well as more recently in our society in general, the interview is one of the most widely used methods for understanding the human experience (Fontana & Frey, 2000). Interviews can be structured, where questions are executed by the interviewer with consistency and very little flexibility is exercised in terms of changing prompts or questions or reacting to what is said by the interviewee (Fontana & Frey, 2000). Interviewing can also be unstructured or in-depth, where the interviewer is more reactive to the specific context of each interview, allowing the process to flow more like a conversation than a structured questionnaire (Fontana & Frey, 2000; Arthur & Nazroo, 2003). Unstructured interviews exist on somewhat of a spectrum in that an interview can be very unstructured and almost completely conversational or it can be more semi-structured and guided by some set questions and topic areas that need to be covered, but are still flexible and reactive (Arthur & Nazroo, 2003).

While qualitative, semi-structured interviews were the most appropriate option for gathering data for this research, there are disadvantages to such an approach (Palys, 1997). Interviews require a significant time commitment from participants, many of whom in this context were senior staff persons with demanding schedules, and as such this deterred participation from some potential participants. Interviews are also susceptible to reactive bias from the interviewee if they start to react to what they perceive as reactions or cues from their interviewer (Palys, 1997). During interviews, the interviewer was careful to maintain neutrality and not lead the interviewee to any particular response, while still understanding that given the context of the interview the interviewer needed to create a good initial rapport with the interviewee in an effort to create a comfortable environment for them to openly discuss their feelings and opinions (Palys, 1997; Legard et. al, 2003). Interviews lasted usually about forty-five minutes to an hour, and were

recorded on a recording device with the permission of the participant. Notes were also taken during the interviews, with permission from the participants, sometimes by hand but usually on a laptop computer.

This research used interviews as the main method of data gathering, and used a semi-structured approach to interviewing. In depth understandings of what the TRCA does or the functions it fills were sought, as well as deeper understandings of how stakeholders felt about the TRCA and what kind of criteria they use to evaluate or conceptualize their relationship with the organization. Grant McCracken (1998) says about qualitative interviews, "For certain descriptive and analytic purposes, no instrument of inquiry is more revealing. The method can take us into the mental world of the individual, to glimpse the categories and logic by which he or she sees the world." (McCracken, p. 9). Therefore the interview, and particularly the semi-structured interview, would help to uncover these deeper understandings by revealing each stakeholder's perception of the TRCA. This was the most appropriate approach for gathering the type of data that was needed because the intent was to explore individual perceptions of the TRCA through descriptive accounts of interactions with the organization (Warren & Karner, 2010). A semi-structured format was necessary because while a detailed account was sought, it was intended to enable the interviewee to easily transition into discussing stories and examples to illustrate their ideas, but there was also material and questions that needed to be answered or at least discussed by all interviewees to see patterns and begin to form categories in the analysis of the interview transcript data (Bryman, Teevan & Bell, 2009). However the interview format could not be too structured, as the group of interviewees was made up of a diverse set of stakeholders who all interact with the TRCA in different contexts and to different extents, necessitating a flexible approach to the way certain questions were phrased.

4.2.1.1 Formulating the Questions

It was important to include the entire research team, both academics and TRCA staff participants, in developing the interview questions. Whyte (1991) explains that following a participatory action approach, "…involves practitioners in the research process from the initial design of the project through data gathering and analysis to final conclusions and actions arising out of the research." (p. 7). Therefore it was necessary to continue to include TRCA practitioners at this stage, which was accomplished through an iterative process of writing more than three versions of the questions with each version shown to TRCA participants and adjusted according to their opinions and concerns. The final version of the questions was read and approved by all research team members and TRCA practitioners who were interested. Opportunity was also given to comment and adjust the questions with two separate pilot interviews conducted with TRCA practitioners in February and March 2014. Adjustments to the order of the questions were made to following pilot interviews. To read the final list of questions, please see Appendix 2.

In an interview, it is important to begin with simple and least unsettling questions in order to put the interviewee at ease and feel comfortable with the interviewer, which is why the interview questions began with easier questions that related to the interviewees' contexts (Warren & Karner, 2010). Questions should also be open-ended and not excessive in number; 10-15 questions are usually recommended for a qualitative interview (Warren & Karner, p. 130, 2010). Ted Palys (1997) discusses the strengths of open-ended questioning, "open-ended questions are clearly superior if the researcher is interested in hearing respondents' opinions in their own words – particularly in exploratory research, where the researcher isn't entirely clear about what range of responses might be anticipated." (Palys, p. 164). The use of open-ended questions is

fitting for the purpose of these interviews as the research is intended to explore stakeholders' personal opinions of TRCA and, through a grounded theory approach, use the concepts and categories that are mentioned in interviewees answers to guide the analysis. Planned prompts were used at the end of each question if the interviewee was having trouble answering or needed clarification, or to allow interviewees to expand on their answers with examples (McCracken, 1988). The list of interview questions was sent to interview participants before their interview to give them time to familiarize themselves with the questions.

4.3 Participants

There are two different types of participants in this research, the TRCA staff who are participating in the larger research project and are part of the research advisory committee (see section 3.3.4 The Partnership Project), and the stakeholder participants who participated in the qualitative interviews for the research purposes of this specific study. The TRCA staff participants are practitioners at the TRCA and were a part of constructing this research project from the beginning, as mentioned previously in Chapter 3: Case Study. The following sections will explain how the participants for the interviews that were conducted for the specific research on this project were chosen and recruited.

4.3.1 Choosing Interview Participants

Selecting interview participants is often done by the researcher and might be done by finding them in a certain context, as Warren and Karner (2010) suggest, "…locating a social setting in which they can be found, either in the community or over the internet" (p. 142). However in this research project, the list of potential interviewees was developed through a collaborative exercise with the research team and the TRCA participants in much the same way the interview questions

were developed. An initial list of potential interview participants was suggested by the research team (guided mostly by the experience of the team members who work at TRCA) and then was adjusted by the TRCA practitioners involved in our project, and a final version of the list was then approved by both the research team and involved TRCA staff. The academic members of the research advisory committee were also consulted on this list.

There are three reasons that participants were selected this way. First, this was done to ensure that the TRCA practitioner participants in the research project were consulted and included at every stage of the research project to ensure a proper participatory action research approach (Whyte, 1991). It was also done this way as part of the theoretical framework discussed in Chapter 2: Literature Review. This research is based in a systems thinking approach and attempts to contribute to a systems understanding of the TRCA's context in order to better understand areas of opportunity and challenge for the organization. In a systems investigation, there are always questions of whose interests will be represented and who gets to decide or lead the process (Kay, 2008). Because of this, as James Kay (2008) notes, "…a systems investigation must go hand in hand with a participatory process…" (p. 31). According to the theoretical approach guiding this research, the participatory methods of the interview development process are appropriate in this instance. Lastly, due to the nature of the research questions, it was necessary to select potential interview participants based on their stakeholder relationship with the TRCA, and so our TRCA partners in this research project were able to most accurately define who those individuals or organizations are for the TRCA. This meant that the TRCA participants were selecting interview participants for perception-oriented interviews about their own organization, an ethical issue that will be expanded on later in this chapter.

Throughout the process of contacting potential interview participants, due to declines of invitation to be interviewed, the researcher had to come up with some new names in certain categories to ensure a representative sample from each category. The majority of those who declined to be interviewed or whom the researcher was unable to contact after several attempts came from the 'private industry' category. The individuals that were selected to replace these were suggested and approved by members of the academic research team who were also TRCA staff.

Some potential interview participants that the researcher contacted responded to interview requests by suggesting someone else who could be interviewed in place of them as they were unable to find the time or they felt someone else from their organization would have a better perspective, and in those cases the researcher contacted and interviewed the suggested alternative.

4.3.1.1 Representative Sectors and Areas

TRCA stakeholders represent a wide variety of sectors and geographic regions that include municipal government, private industry, provincial government, ENGOs and academia as well as the regions of Peel, York, Durham and Toronto. The researcher tried to ensure that the interview sample represented all of these sectors and geographic areas as proportionately as possible. An effort was made to ensure a representative sample of stakeholders according to their geographic region and their representative sector. An excel document was created to keep track of the demographics of interview respondents and view the distribution of representation across all categories.

4.3.2 Recruiting Procedure

The interview questions and procedure received full approval from University of Waterloo under our larger research project. Once our research team and the TRCA practitioners involved agreed upon the list of potential interviewees, the researcher began to contact them. The researcher started by sending emails, followed by phone calls to those who did not respond to email. The emails that were sent contained an ethics approved invitation letter explaining about the project and an invitation to participate. If potential participants replied back with interest in participating, they were then sent another ethics approved letter giving more detail about what would be required of their participation. After an interview was completed, follow-up emails were sent to interview participants, which contained a third letter re-iterating the details of their involvement and the details of confidentiality.

4.3.2.1 Snowball Sampling

Snowball sampling is a way of selecting potential research participants by asking participants who have already been interviewed for recommendations for other persons to be interviewed (Ritchie et al., 2003). Usually this approach is used when a target population is hard to find or inaccessible for some other reason (Palys, 1997). However, due to the unique way that the initial sample of participants was collected (through the recommendations of TRCA practitioners) the researcher felt it important to use a snowball sampling approach to check with the initial interview participants who they might recommend and whether it was vastly different than the list that the TRCA supplied. Generally this was not the case, and stakeholders who answered this question suggested some of the same people on the original list, or suggested the same organizations or sectors. Although only one round of interviewing was done and the snowball sample suggestions were not contacted for a second round of interviewing, the snowball sampling helped to form an initial understanding of the stakeholders' views about who they

thought we should talk to, and often their suggestions reinforced people or sectors or organizations that were on our initial list.

4.3.3 Pilot Interviews

In total, there were twenty-five interviews completed, with four of these interviews as pilot interviews to test out questions and get feedback, and two of the interviews conducted with internal TRCA senior staff who are part of the research advisory committee (see section 3.4.4 The Partnership Project). Two of the pilot interviews were done with internal TRCA senior staff persons, and two were done with external TRCA stakeholders. In the results chapter of this thesis (Chapter 5: Results), twenty-three of the twenty-five interviews are used for data analysis. This is because the internal interviews cannot be counted as data of stakeholder opinions of the TRCA. Although there is not enough data to make any conclusions about the internal interviews, they will be briefly referred to in the recommendations chapter (Chapter 7: Recommendations) of this thesis for the purpose of recommending further internal interviews to be completed.

4.4 Analytical Approach

The analytical approach to the interview data involved interpreting and coding interview transcripts for emergent themes, which informed the overall analysis of this research.

4.4.1 Analysis

As mentioned earlier in this chapter, a grounded theory approach was used when analyzing the interview data. Bryman et al. (2009) refer to data analysis in grounded theory as, "…an iterative or recursive approach in which … data collection and analysis proceed in tandem, repeatedly referring back to each other" (p. 252). Throughout the collection and analysis of the data,

different patterns or themes in the interviews and interview transcripts were observed that helped to guide the direction of the analysis.

4.4.2 Coding

Coding is an essential part of a grounded theory approach to analyzing data (Bryman et al. 2009). Each interview was transcribed verbatim and then coded in Nvivo for Mac software. To code the interview data, the researcher became familiarized with the data by reading over the transcripts and identifying recurring themes in the answers (Ritchie et al., 2003). These themes helped to emphasize certain bodies of literature that were relevant, such as systems thinking and organizational identity, and this informed a review of new literature to add to the existing review, including organizational legitimacy literature. The identification of initial themes and concepts informed the creation of a thematic framework of concepts represented as nodes in Nvivo. Sections of interview transcripts were then sorted under the nodes that seemed to fit, and this resulted in the creation of more nodes and many iterations of the thematic framework as a result of rearranging the themes and concepts or discovering new themes and concepts (Bryman et al. 2009; Ritchie et al., 2003). Once this initial exercise of fitting the data to the thematic framework was complete, the researcher began to look closer at the themes and within them start to develop categories and classification, leading to more specific node classifications. This specific and more detailed exercise of classifications then led to categories that were similar on a broader level and were then grouped under a broader category to help refine the classifications but still retain a level of detail within them (Ritchie et al. 2003). An attempt was made to also find linkages between different categories and classifications. For example, does a certain type of stakeholder (i.e. developers) relate with a certain category of answer (i.e. TRCA should only perform traditionally mandated responsibilities) (Ritchie, et al. 2003). Concepts from the

literature were used to analyze these results further and hypothesize about implications of the results for the TRCA context.

4.5 Validity

The following sections address issues of ethics and bias in the research methods, as well as the reliability and potential for generalization of the findings and analysis.

4.5.1 Ethical Issues

There were certain challenges with this research that may have either biased the sample of participants or could have biased the results of the interviews. The potential biases were checked with the research advisory committee and understood prior to beginning the data collection.

First, because the TRCA collaboratively developed the list of stakeholders to be interviewed, the names of individuals they decided on might not be the truest representative sample of their stakeholders. For example, there were names removed by TRCA practitioners (during one iteration of developing the list) who might have been too 'unfriendly' according to the TRCA and there was concern about a possible backlash toward the TRCA from interviewing these certain stakeholders.

Throughout the interviews it was discovered that a few of the interview participants were friends of the TRCA CEO or had previous personal relationships with him. This could have affected their responses in terms of being overly sympathetic to the TRCA and its endeavors, or very positive and enthusiastic about the TRCA.

Participants from different stakeholder categories were either more willing or less willing to interview. For example, there was a lot of rejection of the invitations from the 'private industry' category and more or less complete participation from the 'municipal government' category,

even when replacements had to be suggested. While the researcher attempted, and somewhat successfully, to find enough new names to replace the initial rejections, it is important to note that this happened with the original sample.

The researcher's level of experience as a novice interviewer could have affected the outcome of the interviews. Interviewing requires performing multiple different tasks and the ability to hold many different thoughts and respond quickly and appropriately all at the same time and while attempting to ensure the participant is comfortable (Legard et al. 2003; Warren & Karner, 2009). The ability to do this requires practice and experience, both of which the researcher did not have much of at the beginning of the data collecting process. To counter this, several pilot interviews were conducted with the questions to gain experience (see section 4.3.3 Pilot Interviews), and the lead faculty member of the core research team attended the first few interviews in order to for the researcher to learn through observing him.

Finally, though the representation of categories of stakeholders was diverse, the actual diversity of participants that were interviewed was lacking. The participants were overwhelmingly of senior positions and usually older and male. This was partly due to the contact names given to the researcher by the TRCA. This group, being somewhat homogenous, could have affected the interview outcomes.

4.5.1.1 Participatory Action Research and Ethical Issues

The homogeneity of the group of stakeholders that was interviewed is arguably a consequence of a participatory action research approach, in which the TRCA research team was involved in all steps of the research and collaboratively developed this list. Participatory action research approaches are often thought to be beneficial to research participants because the participatory aspect of the research is considered democratic in that it increases participants' voices and

agency and thus challenging existing power structures (Kindon, et al., 2007). However, this depends on which voices are being represented in the process. A structural research approach can often serve to reinforce the knowledge and ideas of elites in the system (Cornwall, 2003; Kesby et al., 2007). Often the framework of the research project helps to reinforce existing power hierarchies (Mosse, 2001). This is an ethical concern with the participatory action research approach that is highly relevant to this research. In this case, the research participants involved in the collaborative development of the list of stakeholders to interview were almost entirely senior staff persons and majority male. Not surprisingly, the final list of stakeholders was also almost entirely senior staff persons in their organizations as well as homogenous in terms of gender and race. It seems that the research participants represent a level of power and influence in their organization and this resulted in a list of stakeholder names that reflected a narrow, powerful and homogenous group that mirrored the research participants' own identity and influence.

A group of stakeholders that represented women, junior staff persons, younger age groups or ethnic diversity may have led to very different results, for two reasons. First, simply due to the diversity of voices there may have been issues or concerns about the TRCA raised that did not emerge in the more homogenous group of stakeholders. Second, senior staff persons and CEOs, who mostly represented the stakeholder group, spend less time in daily, on-the-ground interactions with TRCA staff and TRCA programming. They are often overseeing activities and observing things at a broader scale and at more of a distance than staff below them in their organizations. This means they have a different perspective which might translate to their answering of interview questions, which could be less in-touch with the realities of their organizational relationship to the TRCA or more sympathetic to the power structure of the TRCA because they benefit from a similar structure in their own organizations.

4.5.2 Data Reliability

The interviews were completed over a five-month time period, and because of this there are things that may have influenced interview responses or even willingness to interview.

The current municipal political climate at the time skewed the answers of some participants when talking about their evaluation of Toronto, and there was a tendency to sometimes perseverate on the municipal politics with veiled references to Rob Ford. Rob Ford was mayor of Toronto from 2010-2014 and was likely one of the most polarizing and talked-about mayors the city has ever seen. This was due to his hardline right-wing policies, and in the later years of his mayoral post, a very highly publicized drug scandal and subsequent messy and public handling of the situation by Mayor Ford (Doolittle, 2014). There was also an upcoming municipal election lead-up (in which he was replaced by mayor John Tory) during the interviews, which might have swayed conversations to mention this (The Canadian Press, 2014a). Finally, some interview participants had had recent political encounters with Ford that were publicized, or were very familiar with mayoral politics and this explains some of the mentions of this in the transcripts. Overall, the municipal politics of the time was generally a more popular topic of conversation among everyone, especially those whose work related to Toronto or municipal policy, which included almost every participant who was interviewed, and this very likely skewed the emphasis of many discussions toward the political environment and the current leadership.

A summer rainstorm and subsequent flooding of much of the city of Toronto and the GTA along the lakefront and in the valley systems happened in July of 2013, causing major infrastructure and transportation problems (The Canadian Press, 2014b). This was a flooding event that was uncommon on the scale that it happened, and, as it was a storm water flood event that involved areas of TRCA's jurisdiction, it is possible that this event was fresh enough in interview

participants minds during interviews that it directed some of their discussion about the organization.

4.5.3 Generalization

Jane Lewis and Jane Ritchie (2003) discuss generalization in qualitative research as involving three distinct concepts: representational generalization, inferential generalization and theoretical generalization (p. 264). Representational generalization refers to whether the results can be generalized to a larger size of the same sample, inferential generalization is the degree to which the results can be generalized to another context, and theoretical generalization means whether the conclusions of the research can be applied to theory more broadly (Lewis & Ritchie, 2003).

A case study approach makes inferential generalization more difficult to begin with, mainly because case studies are meant to provide analytic or theoretical generalization rather than statistical generalization to other contexts (Yin, 2009). While the TRCA case might be able to provide some further insight for the literature concepts that are used in the analysis (systems thinking, organizational change, etc.), the uniqueness of the TRCA context makes it difficult to generalize to other settings. Although it is one of many conservation authorities in southern Ontario, the TRCA is quite the anomaly among those authorities given its substantially larger budget, organizational size and capacity and its densely urban environment. The TRCA faces different issues than many of the other authorities and for this reason it may be difficult to achieve an inferential generalization from this research.

There are certain aspects of this particular research that mean a representational generalization might be hard to achieve as well. Due to the way the interview participants were selected (partially by the TRCA staff themselves) the sample is likely biased and in that way might be less representative of a truer sample of TRCA's stakeholders.

4.6 Locating the Researcher

This section is intended to briefly describe my background and positioning in this research context. An understanding of my location in the research may reveal any pre-existing assumptions about reality that could be reflected in my research (Maxwell, 2013).

My undergraduate degree is in political studies, with focuses on Canadian and Latin American politics, and electoral systems, and so I came to this research with an understanding of issues oriented around local government structures. Personally, I have lived and worked in the Greater Toronto Area my whole life. The house I grew up in was located in a small hamlet, where I witnessed the increasing encroachment of development onto rural and agricultural land and the constant resistance of community members to this continued urbanization. I mention this because conservation authorities were and continue to be an ally in that resistance as a result of their mandate of protection, and this perception of conservation authorities as an ally, although never consciously articulated by me, certainly exists and shapes my attitudes toward this research. I will admit that I believe in the fundamental importance of conservation authorities as an advocate and steward of watersheds.

In the context of the academic research group, our core group included two members who are also TRCA staff. This meant I was exposed to insider perspectives of the TRCA and at times felt as though I was an insider to the organization myself. This resulted in my identity as a researcher being located on a continuum of positionality (Herr & Anderson, 2014). This increased my knowledge of the research context and ensured that my research was resonating with real interests at the TRCA, but it was also only one expression of interests and only one version of the reality that exists in the organization (Herr & Anderson, 2014).

Methodologically I am personally in favour of a participatory action research approach, simply because I believe research should be in the service of others, and this is what a participatory approach attempts to do.

Finally, I am a young female researcher. I must acknowledge this because the interview participants that I interviewed, as previously mentioned, were almost all older and male. My positional difference allowed me to recognize this distinct homogeneity among participants, and in some ways might have altered the way participants interacted or responded to me.

Chapter 5. Results

The coding of the data revealed six main categories that were consistent with the structure of the interview questions 1) TRCA identity, 2) Interactions with TRCA, 3) What the TRCA does well and what they should improve on, 4) TRCA's role in sustainability in Toronto, 5) What groups should be involved in sustainability, and 6) Conceptions of sustainability and Toronto. Themes resulted from each category and broader themes emerged from the overall analysis. The first category is related to how stakeholders of the TRCA perceive the identity of the organization and broadly captures the way a stakeholder reports on how they 'see' the TRCA. The second category reveals the types of interactions and the experiences that stakeholders have with the TRCA. The third category is linked to stakeholder's opinions of what the TRCA is exceptionally good at, and what they could improve on as an organization. The fourth category again relates to TRCA's perceived identity, but focused on what their identity should be regarding sustainability efforts in the Toronto region, according to the stakeholders we interviewed. The sixth category is linked to stakeholder understandings of the concept of sustainability and how it relates to the city of Toronto, Toronto region and Greater Toronto Area context. A sub-category to this is stakeholders' ideas about what groups (TRCA or other) should be involved in sustainability in Toronto. Each category will be described in terms of findings from the interviews as well as the resulting themes determined by coding analysis.

The findings are further analyzed by responses from different stakeholder groups, but this is done in the following chapter, Chapter 6: Analysis. Out of twenty-three stakeholders interviewed, 8 were from municipal governments, 4 were from provincial government, 5 were from environmental non-government organizations, 3 were from private industry, 2 were from not for profit corporations and 1 was from academia. This is represented by figure 4 in the

following chapter. This section will attribute quotations to different stakeholders based on their representation according to sector. The stakeholder identities will be represented as acronyms for their sector along with a number beside the acronym representing the individual stakeholder. The acronyms are as follows:

Acronym	Sector
MG (1-8)	Municipal Government
PG (1-4)	Provincial Government
ENGO (1-5)	Environmental Non-Government Organization
PI (1-3)	Private Industry
NFPC (1,2)	Not For Profit Corporation
AC (1)	Academia

Table 1. Stakeholder identification acronyms

5.1 TRCA Identity

There were certain themes that emerged in responses to this question. A majority of stakeholders identify the TRCA with their core mandated activities and responsibilities (18 of 23). Of those who associated the TRCA with their mandated responsibilities, the most common association was as an environmental regulator (10 of 23). Stakeholders who identified the TRCA as a regulator may have also identified the organization in other roles, but made sure to express that they see the TRCA as a regulator as well:

> AC-1: So I wanted to get the regulatory stuff out of the way right away and just indicate that that's just been a really, really significant contribution of TRCA. And then moving on to other much more subtle things that the TRCA is doing in partnership with STORM, STORM is using one of their buildings as an office and I think this just goes to what an

> organization the size of metro Toronto region [TRCA] can do in facilitating other organizations and their success.

About half of stakeholders (12 of 23), and some of the same stakeholders who view the TRCA's identity in relation to their traditionally mandated responsibilities, identify the TRCA with their new directions. Some mention the TRCA as being involved in sustainability pursuits and identify them with the strategic plan, and others mention the TRCA as a coordinator or facilitator for bringing regional stakeholders together:

> PI-3: So that's one function that we see them [as a regulator], they have a secondary or a second area that they perceive to be their mandate which is to take initiatives beyond the provincial requirements, and this is where we can get into more sustainability concerns.

While many stakeholders expressed the TRCA's identity as related to their traditional mandate and others expressed it as related to newer sustainability directions, about 25% (6 of 23) stakeholders indicated the TRCA's identity was in transition:

> MG-1: I think if you look at, annually there's been events there and the way the TRCA has approached it and their educational sorts of materials and attitude they bring this year, as opposed to ten years ago, have changed, and I watched that each year. It was subtle but it looked to me like there had been a change of direction from the board or the chair saying, we need to focus more on these broader issues because they're all relevant to our mandate and we're too narrowly construing our mandate.

The stakeholders' descriptions of TRCA's identity were either a reference to the technical roles that the TRCA performs, or a normative description of the characteristics of the organization. The most common roles associated with the TRCA are a regulator (10 of 23), an advocate or champion of the watershed (6 of 23), a coordinator, collaborator or facilitator with different

stakeholder groups (6 of 23), conservation, protection or stewardship role (6 of 23) and some mention of their role in education (3 of 23). Normatively, stakeholders frequently describe TRCA as an extension of government and a political organization (8 of 23) and almost just as frequently (6 of 23), different stakeholders describe them as non-political. Other common normative descriptions included a described lack of clarity about the TRCA's role when working with them or a perceived unawareness in the public of TRCA's actions or purpose. One stakeholder said, "I see it as somewhat isolated, in that few know what its role is, the impression on the political level unless you're on TRCA that the role of the TRCA is to say 'no'." (MG-2)

TRCA was also described somewhat frequently in the context of conflict when working with stakeholders (6 of 23). Generally this was related to the regulatory relationship the TRCA has with a stakeholder or was a result of the TRCA doing something beyond their mandated responsibilities when working with a stakeholder. As one stakeholder described:

> MG-8: I think it's hard for TRCA because it's not their policy that's being implemented – we have our policy they have theirs – but ideally they should work together, but sometimes they don't and that's where sometimes potentially some problems could come in.

The most pervasive theme of TRCA's perceived identity is related to the notion of their perceived organizational legitimacy. A majority of stakeholders (16 of 23) described the TRCA as a legitimate organization, which included perceiving them as knowledgeable and having the right expertise, that they are 'good people' doing 'good work', that they are important, necessary, or that the stakeholder relies on them, that they are a trusted organization or that they are fact or science based and objective. One stakeholder who's organization had partnered with the TRCA for a project said, "We chose the TRCA because they were always doing what we thought was

right and that giving them some money would benefit the whole community… yeah, people trust them." (NFPC-2). Another stakeholder described their expertise when working with them, "Because it's hard for us to do that kind of research, we don't really have that kind of expertise, so they do, TRCA does have lots of ecologists and hydrologists and all those other kinds of expertise." (MG-8). This theme of identifying TRCA as a legitimate organization is so pervasive that even stakeholders who describe the TRCA as often in conflict with their interests, or who express frustration in how they work together or how the TRCA implements policy, still voluntarily describe the TRCA as a necessary organization. As one stakeholder put it:

> PI-2: Unfortunately, my role is I do all development work, so I see the authority as a necessary evil. I do appreciate their role, what they have to do, what they're trying to achieve. And so from a big picture perspective their reason for being is notable and honourable.

The identity of the TRCA as a legitimate organization is not limited to a certain type of stakeholder; it seems to persist regardless of what kind of relationship the stakeholder has with TRCA. This theme also persists throughout the answering of other questions and will be further explored at the end of the results section.

5.2 Interactions with TRCA

Stakeholders interact with the TRCA in a variety of different roles. Specific to this group of stakeholders, I found that most interacted with TRCA in relation to their traditional mandate functions (19 of 23) and about half interacted with TRCA in relation to their non-traditional mandate functions (13 of 23). However about 30% of stakeholders interact with the TRCA on both the traditional and non-traditional mandate responsibilities (7 of 23). The most common traditional mandate interactions include interactions related to regulation, approvals and policy

implementation (9 of 19). The other common interactions on traditional mandate responsibilities included storm water management and flooding (6 of 19), watershed activities, water quality and restoration (5 of 19), interactions relating to the Oak Ridges Moraine (3 of 19), and interacting as a funder of the TRCA (2 of 19). The most common non-traditional mandate interactions included working with the TRCA on climate change adaptation (5 of 13), collaborative projects such as Greening Greater Toronto, Partners in Project Green and the Living City report card (4 of 13), and work related to near urban agriculture (2 of 13).

5.2.1 Feelings About Interactions

Where stakeholders express their feelings about the quality of the interactions they have with TRCA, the majority are positive (16 of 23). The most common reason for positive feelings is related to how the TRCA works together with the stakeholder (8 of 16). These stakeholders report that they feel the TRCA is supportive or helpful (4 of 8), that they are respectful in their interactions (2 of 8), that they are cooperative, that they work well collaboratively and that have a good partnership with the TRCA. One stakeholder said about their interactions with the TRCA:

> PG-4: I think TRCA has actually been exceptional in terms of understanding how they can support us in advancing our program. Like they are very quick to respond to some of these special requests we have around supporting other conservation authorities across the province in certain areas, providing guidance on things, helping us create tools that everyone can use. They really get that if we can do this through one group and share it with everyone then it benefits everyone.

Other positive feelings about interactions with the TRCA are related to an understanding of the TRCA as a progressive organization (7 of 16), the competency of the TRCA (3 of 16), and that the TRCA helps integrate or form connections between different stakeholders (2 of 16). In

describing their work with TRCA, one stakeholder added, "I see that as being progressive and good on their part in looking at alternatives and trying to figure these things out, it's not easy but I see that as important and where they work well with us when we do that." (PI-1)

About 25% of stakeholders (6 of 23) have negative feelings about their interactions with TRCA. Generally this is due to a stakeholder who disagrees with how TRCA is operating in relation to them, usually meaning they disagree with how TRCA applies policy or exercises their mandated responsibilities. Also associated with negative feelings about interactions with the TRCA are concerns about not receiving enough support from the TRCA, or a stakeholder's confusion about the TRCA's role when working together. About 30% of stakeholders (7 of 23) describe their interactions with the TRCA in a purely functional and neutral way and this was not counted as either negative or positive feelings.

5.3 Strengths and Areas for Improvement

5.3.1 Strengths

The majority of stakeholders (17 of 23) feel that the TRCA performs their mandated responsibilities exceptionally well. Stakeholders mention things such as restoration, "so they are doing an outstanding job of restoration services which to me it goes back to one of the core functions of these things we call conservation authorities…" (ENGO-1), as well as flood and hazard responsibilities:

> MG-7: I think they have a pretty good understanding and capacity in flood emergency management, floodplain natural hazards, science, mapping of hazards, delivering of plan input and review, guidance on natural hazards, that's very well done, flood emergency management, which has been a core business of theirs for a long time.

Stakeholders also feel that they work very well with the TRCA and many describe this as something the organization does exceptionally well (10 of 23). Specifically, stakeholders attribute this strength to their understanding of the TRCA as forward thinking, problem solving or innovative, and proactive. Stakeholders also mention that the TRCA provides good support and guidance, and some report that they generally just work well together or have a good partnership.

About 30% of stakeholders, when describing what the TRCA does exceptionally well, describe their interactions with TRCA staff. Some described their interactions as related to specific staff people, "my experiences with these two staff, [removed], were just phenomenal, they were so professional, they were so helpful, they were so – it was just amazing. … I think they are exceptional; they've attracted superb people, really, really good people." (ENGO-1).

Other stakeholders describe the quality of TRCA staff in a broader way, "so I think they're exceptional that way, they've got an amazing group of staff that are always up to new challenges and working with us to find new solutions, they're really, really good that way." (PG-4).

Stakeholders also feel that the TRCA is exceptionally good at doing things beyond their traditionally mandated responsibilities (6 of 23), that they are good at public engagement (5 of 23), and that they are good at bringing stakeholders together (3 of 23). Stakeholders also describe the TRCA as a strategic and sophisticated organization and feel that this is something the organization does exceptionally well (5 of 23). As one stakeholder describes:

> ENGO-4: I think the TRCA is a very politically sophisticated organization and they understand their bosses and they also try to move their mandate forward as much as possible, keeping in mind that in the world of politics you have to be very conscious of what's going on.

Finally, a large number of stakeholders (8 of 23), refer to the TRCA's expertise, knowledge, the quality of their research, the necessity of their role, the good people who work there, and their reputation as trustworthy when describing what the TRCA does well. This is all classified under the theme of legitimacy, reinforcing the TRCA's reputation as a legitimate organization. When describing what the TRCA does well, one stakeholder said, "…they have the expertise and knowledge so we rely on them completely and so that's, you know, they're the ones who are experts, and they do a great job for us." (NFPC-1).

5.3.2 Areas for Improvement

The most common area for improvement reported by stakeholders is in relation to how they work with the TRCA (12 of 23). This fell into five main categories, the first of which is flexibility in policy application and understanding working contexts and relationships (7 of 12). The second is communications (5 of 12), which includes general communications with stakeholders and more specifically, clarifying their role to stakeholders or when working with stakeholders. The third category is improving collaboration and participatory processes and increasing their knowledge sharing among stakeholders and the public (4 of 12). The final two categories are related to the TRCA's business practices and logistics (i.e. timeliness) (3 of 12), and examples of confusion or conflict expressed when working with the TRCA (i.e. confusion or conflict about jurisdictional authority) (3 of 12).

Stakeholders also feel that the TRCA is doing too much or has too many roles (7 of 23). The way this was often expressed by stakeholders was that the TRCA is taking on too much, or should stick to their mandate. Stakeholders also felt that the TRCA could improve on managing their public and stakeholder perception by doing a better job of selling itself or explaining what they do as an organization (7 of 23).

Some stakeholders also express that the TRCA could improve on their staff interactions with stakeholders (4 of 23). This was usually expressed as a problem that is specific to a certain TRCA staff person that the stakeholder works with, as well as a perceived issue of staff turnover. Further areas of improvement included better engagement of public and other stakeholders, that the TRCA is too under-funded and therefore is lacking in resources, and that the TRCA is too politically constrained (i.e. restricted by municipal funders and board members).

5.4 The TRCA's Role in Sustainability

Stakeholders see the TRCA in a variety of roles in the context of sustainability in Toronto and the GTA. Generally, they either see the TRCA's role in sustainability as related to their traditionally mandated responsibilities, or as related to their newer sustainability directions. About one-third of stakeholders see the TRCA's role relating to their mandated responsibilities (7 of 23). This includes their role as a regulator, their role in protection and conservation, land and watershed management, management of storm water and flood plains, and as a general steward of the watershed environment. Another one-third of stakeholders see the TRCA as having a role related to their newer sustainability directions (7 of 23). This includes a role in education and research and development, increased advocacy from the TRCA which includes being freer from political constraints, informing the public of what they do and sharing more data and information, addressing climate change, involvement in green building, and as a potential coordinating body for sustainability efforts. Stakeholders also describe a general expansion of the TRCA's mandate to thinking more broadly about social and economic sustainability and livability, and using the watershed scale as a platform to influence others around sustainability issues. The final one-third sees the TRCA's role in sustainability as relating to both the TRCA's traditionally mandated responsibilities and their newer sustainability directions (9 of 23). Those

who see the TRCA's role in sustainability related to both their traditional mandate and newer directions preface their support of TRCA's new sustainability mandate with emphasis on the necessity of TRCA's core functions:

> AC-1: The regulatory function is absolutely necessary, should never go away. They have to have their axe and the hammer that they do have through the conservation authorities act and other pieces of legislation that they're asked to implement or work under, so that's absolutely critical. But then this idea that I take from Tom Bridges and the way he described EMAN, they're the grease and the glue of much what civil society can do in terms of the sustainability, on the sustainability front, and I think that's where an awful lot of gains could be made with the TRCA and they're starting to do and are doing in many cases an excellent job.

Some of these stakeholders who were supportive were also hesitant about the TRCA taking on more than their traditionally mandated responsibilities:

> MG-7: Anyway I think it's an incubator, research role, program support role but maybe program delivery stuff if very closely aligned to their water resource programming. That's what I would throw out there, others might suggest broader, some might suggest no they should just be flood and erosion managers and that's it. I'm somewhere in the middle, maybe close to their core mandate but in the middle somewhere.

Finally, some of these stakeholders are very clear about seeing the TRCA in both roles in the future:

> MG-6: So I see their most effective role is in managing the change in landscape because it is managing the change in landscape as we're bringing more and more people into the city as we're building more and more subdivisions and we're building more and more

> density into a built environment which is already relatively congested, that's where I see the TRCA has a large role. But I acknowledge within that they probably should have a broader role, because yes they have a role in educating the public but I don't see them visible in that.

Stakeholders also feel that the TRCA should not take on more responsibilities than they already have (8 of 23). These stakeholders feel the TRCA should be perhaps narrowing their focus and consolidating their mandate:

> MG-3: I think if there's one point I hope I've made is that there's enough of an effort around water quality, which is very meaningful, very important. And water quantity for that matter too when it comes to flood control, there's enough of an effort there to be everything you need to be to everyone, you don't necessarily need to run recreation programs and all the other stuff that is nice to have.

Some also feel nervous that core mandate programs will suffer if more attention is given to programs unrelated to core mandate:

> ENGO-1:…But I see 'living city' and it takes me a while to go, oh right that's the old conservation foundation. So I feel a bit abandoned. I feel the natural environment, natural ecological services has been somewhat abandoned by the TRCA. And I fear that they will end up being stretched way too thin…

Stakeholders also see the TRCA's role in sustainability as a supporter of other organizations (5 of 23). Some stakeholders see this is a more progressive and sustainability-focused way:

> PI-3: So I look at TRCA, for example I know they were doing a lot about CO2, well this is not in the purview right yet of the municipalities or the regions, so if they come up with some guidelines with regard to CO2 that get implemented by other agencies, that's a very

> significant opportunity for them. So I think they're more into the initiatives, looking at new initiatives for sustainability that can lead to implementation by others.

While other stakeholders see the TRCA's supportive role as more closely aligned with their core mandate responsibilities, "I think it's sort of a supportive role, research role, program delivery role within areas of their mandate or that are very closely aligned to their core mandate. I think that's how I would describe their role that would probably gain a bit of traction and support." (MG-7).

5.5 Conceptions of Sustainability

About half of stakeholders (12 of 23) mention the three pillars of sustainability or that sustainability is a three-legged stool of environmental, social and economic needs. Stakeholders also mention maintaining for future generations, creating and enhancing resilience and protecting environment and natural heritage. Some definitions were more specific and less broad and defined sustainability as improving on green building techniques such as green roofs and bird friendly designs or focusing on renewable energy.

5.5.1 Sustainability In Toronto/Toronto Region/Greater Toronto Area

When stakeholders imagine what a sustainable Toronto might look like, they inevitably will discuss it in the context of issues that currently affect the region's potential for sustainability. The most common issue discussed is transit, transportation and commuting. Stakeholders feel that a sustainable Toronto or Toronto region would have to improve transit access and design as well as improve traffic congestion caused by car commuting. Stakeholders also feel that improved development approaches including more green building designs and improved infrastructure to deal with effects of climate change are necessary for a sustainable region. Other

common issues include improved employment opportunities and better wages, protecting and conserving the natural environment (improving water quality and air pollution), improving affordability in the city, protecting agriculture, increasing public and political engagement, improving social equity, and facilitating a shift of cultural values toward more sustainable priorities and behaviour.

5.5.1.1 Evaluation of Toronto/Toronto Region/GTA

This question was added after three pilot interviews were done (see section 4.3.3 Pilot Interviews), and as a result, it was only included in one of the four pilot interviews and the rest of the subsequent twenty-one interviews. This is why the results in this section rely on only twenty-two responses instead of twenty-three.

The majority of stakeholders (12 of 22 responses) explicitly mention that they see Toronto and the GTA 'doing well' as a city and region, while 8 of 22 responses explicitly mention that they see Toronto and the GTA doing poorly as a city and region. There are some responses that indicate both that Toronto and the GTA is doing well and doing poorly and these responses are counted in both codes.

Of those responses that stated Toronto and the GTA are doing well, the most common reasons cited for this are; the economy and growth (7 of 12), the environment (5 of 12), the culture of the city and region (4 of 12) and the intensification and development of the city and the GTA (3 of 12). Of the responses that state Toronto and the GTA is not doing well or doing poorly, the most common reasons cited for this are; the environment (3 of 8), government and governance issues (3 of 8), and the growth and development in the region (2 of 8).

Only 3 of 22 responses explicitly mention sustainability when they are evaluating how Toronto and the GTA are doing.

5.5.1.2 Issues

Many stakeholders discussed specific issues related to their evaluation of Toronto and the region. The issues were wide-ranging, but most notable were the top five most mentioned issues; development (11 of 22), economy (9 of 22), environment (8 of 22), politics and governance (7 of 22) and transportation (7 of 22). The least mentioned issues (those that were mentioned by 3 or less stakeholders) included; climate change, green space, pollution, income inequality, innovativeness or competitiveness of the city, policy and social issues. A reason for the incidence of responses about government and governance issues could be related to the current mayoral regime at the time the interviews were done, as there were multiple mentions of the city's mayor specifically (see Chapter 4: Methods).

5.5.2 Who should be involved in sustainability?

Stakeholders feel overwhelmingly that government, which includes federal, provincial and municipal, should be involved in sustainability efforts (19 of 23). However most stakeholders who feel government should be involved in sustainability are referring to municipal or city level government bodies. About half of stakeholders also feel that the TRCA or CAs should be involved in sustainability, as well as NGOs and ENGOs and private industry (i.e. development, energy sector, banking). About one-fifth of stakeholders also mention that their own organization in particular should be involved in sustainability.

5.7 Summary

This last section of the chapter provides a summary of the results in each category, as well as a summary of the themes that have emerged from the results.

5.7.1 Summary of Findings

Table 2 outlines a summary of the findings that have been presented. The chart summarizes the main findings from each question category in the order that it was reported in this chapter.

TRCA Identity	• A majority of stakeholders (18 of 23) describe the TRCA's identity in terms of their traditionally mandated responsibilities • About half of stakeholders (12 of 23) describe the TRCA's identity in terms of newer sustainability directions • Approximately one fourth of stakeholders (6 of 23) recognize the TRCA's identity is in transition.
Interactions with TRCA	• Most stakeholders (19 of 23) interact with the TRCA on their traditionally mandated responsibilities; about half (13 of 23) interact with the TRCA on their newer sustainability mandate; about one-third (7 of 23) interacts with the TRCA in both areas • Where stakeholders expressed feelings about their interactions, most have a positive evaluation and this is due to the way the TRCA works with them or their organization. • Negative feelings (about one fourth of responses) were mostly due to a conflict of interest or complaints about the way TRCA applies policy.
Strengths and Areas to Improve on	• The most commonly reported strengths of the TRCA as reported by stakeholders are related to the TRCA's mandated responsibilities, their working relationships with stakeholders, their efforts to address issues outside of their mandated responsibilities and their 'legitimate' qualities (i.e. their expertise, knowledge, etc.). • The most commonly reported areas that TRCA could improve upon were related to the way that stakeholders work with them (communication, flexibility and understanding, collaboration and participatory processes, business practices, areas of confusion), staff relations and concerns with the TRCA taking on too much.

TRCA's Role in Sustainability	Opinions about TRCA's role in sustainability are divided almost equally among three categories; • One third of stakeholders (7 of 23) see the TRCA's role related strictly to their traditionally mandated responsibilities • One third (7 of 23) see the TRCA's role related strictly to their new sustainability directions • One third (9 of 23) see the TRCA's role related to both their traditionally mandated responsibilities as well as new sustainability directions.
Stakeholder Definitions of Sustainability	• When defining sustainability, many stakeholders describe the concept in relation to three pillars: social, environment and economy. • Specific to the Toronto and GTA context, most stakeholders discuss the issue of transit when discussing sustainability. • Over half of stakeholders (12 of 22) have a positive evaluation of the city and region, while one third (8 of 22) think the city and region is doing poorly. • A majority of stakeholders (19 of 23) feel that municipal government should be involved in sustainability efforts, while about half feel that the TRCA or conservation authorities in general should be involved in sustainability.

Table 2. Summary of findings

5.7.2 Overall Themes

Four major themes related to the TRCA's identity and role in sustainability that have emerged from the findings are summarized in Table 3. These are the more prominent themes that emerged across responses in all question categories. These four themes will be used to structure the following chapter, Chapter 6: Analysis, in which they will be explored in more depth with reference to the relevant literature reviewed in the previous chapter, Chapter 2: Literature Review.

Legitimacy	The TRCA is perceived by almost all stakeholders as a legitimate organization
Supporting Role	The TRCA is perceived as having a supportive role in helping other organizations pursue sustainability, fulfill their functions, facilitate connections between stakeholders, etc.
Taking On Too Much	Stakeholders have concerns about the TRCA taking on too much or going beyond their mandate
Stakeholder Diversity	There are many different types of stakeholders and stakeholder interactions that cause a wide variety of necessary functions and roles for the TRCA and a diversity of expectations among stakeholders.

Table 3. Overall themes from findings

Chapter 6. Analysis

The original questions of this research are: What are stakeholder perceptions of the TRCA's identity? And what explanation can these insights offer about TRCA's capacity for organizational action and change toward addressing sustainability? The researcher intended to answer these questions through a qualitative research approach, using semi-structured interviews to probe stakeholder perceptions. The objectives of this research, as described in section 1.2 of Chapter 1: Introduction, were:

1. Assess stakeholder perceptions of the TRCA's identity as an organization, and of the TRCA's current and future role with regard to sustainability.
2. Using a systems thinking approach, and integrating concepts from organizations literature to analyze the interview data, attempt to understand TRCA's position in the system and possible directions or opportunities for the organization, as well as identify potential challenges that they may face.
3. Provide meaningful and useable information that the TRCA can utilize to inform current and future strategic decision-making.

The purpose of this research was to acknowledge and discover stakeholder perception of the TRCA on the assumption (supported by organizations literature) that it is important for an organization to understand what their stakeholders believe about them, especially if that organization is changing (Hatch & Schultz, 2004). A review of the literature on organizations and organizational change suggests that a systems thinking approach is appropriate for assessing an organization. A review of the literature on systems approaches suggests that one possible and useful approach to analyzing a system begins with a system description. This approach is helpful for understanding a complex system because it can uncover indirect connections and resulting

behaviours (Kay, 2008), it allows for assessment of the system's resilience capacity (Walker & Salt, 2012) and can contribute to an understanding of the system's capacity for innovation (Westley et al., 2007). James Kay (2008) perhaps summarized the usefulness of a systems approach best with this quotation from An Ecosystem Approach:

> Systems thinking provides us with a heuristic tool and common language for framing situations and exploring self organizing phenomena. It provides us with guidance about how to decide what is important to look at, and not look at, and how to describe a situation. It helps us understand the self-organizing possibilities in a situation and thus to map out potential future scenarios. It provides a basis for synthesizing our understanding of a situation into narratives about how the future might unfold and the trade offs that exist between choosing different paths. It also helps us understand what it is we don't understand (p. 10-11).

The intention of this chapter is to use systems thinking concepts to guide an analysis of the results described in the previous chapter. This analysis will invoke more specific concepts like organizational change, identity, image, legitimacy, reputation and stakeholders to ground the systems analysis in concepts specifically relevant to the TRCA case. This will be done in two ways; first, the dominant themes that emerged from the categories of findings will be explained with reference to the TRCA and evaluating its capacity for organizational change as well as highlighting areas of opportunity and challenge. Second, the most recent iteration of the TRCA 10 Year Strategic Plan, Building the Living City, will be used as a reference point for analyzing how relationships with stakeholders, informed by interview results, are aligned or not with the proposed goals of the strategic plan.

6.1 Diversity of Stakeholder Expectations

The TRCA operates in many different contexts and their diverse set of stakeholders represent this. There were twenty-three stakeholders interviewed, representing a variety of sectors and geographic areas. Figure 4 and Figure 5 provide a visualization of the breakdown of these attributes among stakeholders who were interviewed. Out of 23 stakeholders, 8 were from municipal governments, 4 were from provincial government, 5 were from ENGOs, 3 were from private industry, 2 were from not for profit corporations and 1 was from academia.

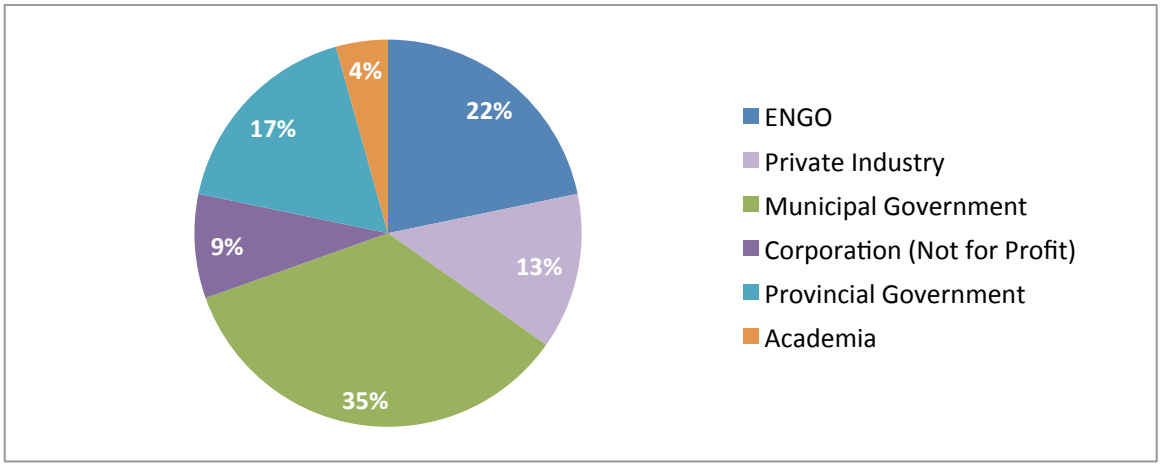

Figure 5.. Sector representation of stakeholders who were interviewed

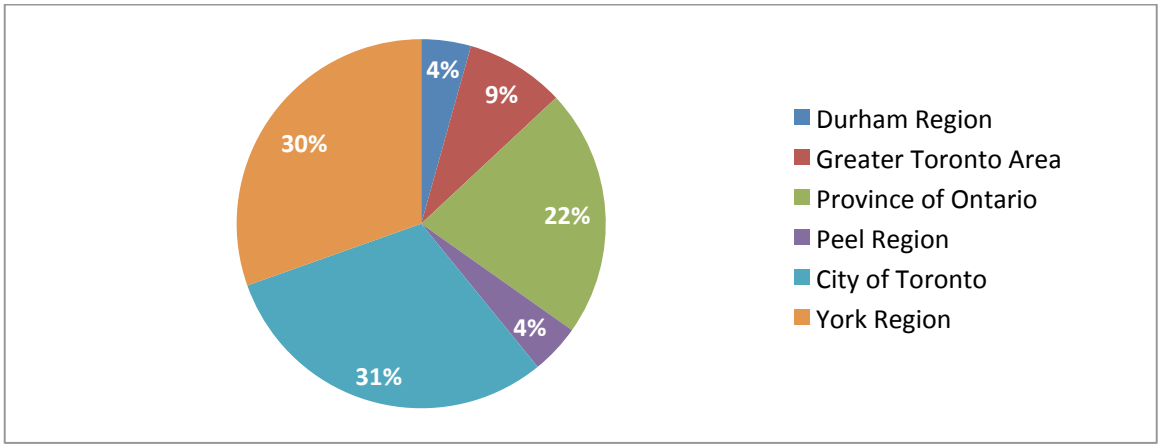

Figure 6. Geographic representation of stakeholders who were interviewed

Each analysis section will include a chart that breaks down certain responses or themes by response from each sector. Because there is unequal representation from each sector, the charts

will reflect higher numbers in the rows of stakeholder groups with higher representation in the interviews (i.e. municipal government) and lower numbers in the rows of stakeholder groups with lower representation in the interviews (i.e. not for profit corporations). Therefore the charts should not be interpreted comparatively by sector. However the charts should help serve a purpose by providing a more detailed understanding of responses that are specific to certain stakeholder groups. The rows of each chart are labeled for the representation of each sector, while the column headings in each chart are labeled for the coded node or nodes that could represent a response to a question or responses that represent a general theme such as 'legitimacy'. The number in each cell represents the number of sources belonging to each sector that were coded at the particular column heading. A source refers to an interview transcript, and represents one stakeholder who was interviewed. The charts were generated through matrix-coding queries in Nvivo for Mac.

The diversity of TRCA's stakeholders results in a diversity of opinions and expectations. Stakeholder expectations and wants are diverse and often are on opposite ends of a spectrum. This is represented when stakeholders discuss how they see the TRCA and what their identity is, and later when they discuss what the TRCA's role should be. When stakeholders discuss what the TRCA's identity is, there are many opposing views; for example, some stakeholders describe the TRCA as a political organization or an extension of the government, while an almost equal number describe the TRCA's identity as non-political. It is also represented by the diversity in type of role that the TRCA is ascribed by stakeholders, this ranged from a regulator, steward, coordinator of stakeholders, an advocacy organization, educator and a conservation and protection role. When stakeholders describe what the TRCA's role should be in sustainability, a similar phenomenon of polarizing opinions is expressed. Stakeholders feel that either TRCA

should be pursuing a role related to sustainability or that TRCA's role should only be related to core mandate responsibilities. Stakeholders who express these opinions are equally strong in their opinion on each side. The results demonstrated through interview responses that stakeholders have a diversity of expectations of what the TRCA's role is and should be with regard to sustainability. While the results indicated that there was an equal split among stakeholders who describe the TRCA's role related to traditional mandated responsibilities and those who describe the TRCA's role related to newer sustainability directions, about one-third of responses described the TRCA's role related to both categories. The following chart provides a more detailed view of these responses.

	Role Related to Traditional Mandated Responsibilities	**Role Related to New Sustainability Directions**	**Role related to both old and new mandate**
Not for profit corporation	2	0	0
Private Industry	2	1	0
ENGO	3	4	2
Municipal Government	6	6	4
Provincial Government	2	4	2
Academia	1	1	1

Table 4. Expectations of TRCA's role according to each stakeholder sector

Generally, it seems like this equal split is reflected in ENGO and municipal government stakeholders, with most private industry and not for profit corporation stakeholders describing the TRCA's role related to traditional mandated responsibilities and most provincial government stakeholders describing the TRCA's role related to their newer sustainability directions. The apparent equal split in ENGO and municipal government rows could be explained by the higher

number of these stakeholders who describe the TRCA's role as related to both their newer sustainability directions and their traditional mandated responsibilities. These distinctions could be important for the TRCA to understand in order to gauge how their strategic direction is understood by certain groups of stakeholders. Not for profit corporations and private industry stakeholders of the TRCA might be more resistant to the TRCA on actions other than their traditional mandated responsibilities, while provincial government stakeholders might be more supportive. ENGO and municipal government stakeholders might also be more supportive of newer sustainability directions, but express an understanding of the TRCA's role as both traditional and sustainability focused, suggesting they expect the TRCA to perform both roles.

Systems thinking requires an approach to understanding a system that incorporates multiple perspectives from multiple stakeholders. It is important to understand the interview responses according to the different stakeholder groups because different stakeholder groups will have different perspectives and be affected uniquely by organizational actions (Lange, 2011). This is reflected in the analytical approach to the themes from the findings, where the analysis of coded responses also analyzes the data according to specific stakeholder sectors. This allows for a better understanding of the diversity of responses within a certain theme.

6.2 Legitimacy

In many of the categories of responses, legitimacy was a common theme. Throughout the responses, 19 out of 23 stakeholders interviewed associate the TRCA with some aspect of organizational legitimacy. Responses in this theme were categorized as:

- Those who spoke about the TRCA having 'good people' or doing 'good work' (the word 'good' used in a normative sense)
- Those who describe the TRCA as 'knowledgeable' or having 'expertise'

- Those who describe the TRCA as 'important', that they are 'necessary' or that the stakeholder 'relies on' the TRCA
- Those who describe the TRCA as non-political or non-partisan
- Those who describe the TRCA as an organization that can be trusted, whether through expressing their confidence in the authority of the organization or by actually using the word trust or respect
- Those who describe the TRCA as 'fact-based', 'objective' or based in 'science'
- Those who describe the TRCA as an 'environmental defender'

The table below shows the categories and the number of stakeholders from each sector whose responses were coded at that node.

	Good People Good Work	**Knowledge Expertise**	**Important, Necessary, Rely On**	**Non-political**	**Trust**	**Fact-Based, Science, Objective**	**Environmental Defender**
Not for profit corporation	2	1	1	0	1	0	0
Private Industry	1	0	2	0	0	0	1
ENGO	3	3	2	1	2	2	0
Municipal Government	4	3	1	3	2	0	0
Provincial Government	1	1	1	2	0	1	0
Academia	0	0	0	0	0	0	0

Table 5. Categories of legitimacy that stakeholder groups associate with TRCA

Using Suchman's three types of organizational legitimacy (1995) explained in Section 2.3.3.1 Organizational Legitimacy, it could be interpreted from the results that the TRCA possesses elements of pragmatic, moral and cognitive legitimacy. A type of pragmatic legitimacy called dispositional legitimacy occurs when an organizational audience personifies an organization

resulting in attributing personality traits to it such as having good character, or being trustworthy or wise or decent (Suchman, 1995). This is reflected in the chart as 'trust' or 'good people/good work' or 'environmental defender'. For example, one stakeholder, while describing the TRCA, said,

> NFPC-2: I mean the TRCA is green, looks green, is accepted by the whole community… We chose the TRCA because they were always doing what we thought was right and that giving them some money would benefit the whole community. … Yeah, people trust them. People don't trust the [a similar organization that operates as an ENGO (removed at request of participant to ensure anonymity)].

The results also reflect that the TRCA possesses two types of moral legitimacy: procedural and structural. Procedural legitimacy is reflected by the node 'fact-based, science, objective' because these nodes reflect stakeholders' value of the TRCA associated with their adherence to socially valued methodologies like western science and knowledge. Structural legitimacy is demonstrated by stakeholders' confidence in the knowledge and expertise of the TRCA and their confidence in the ability of the TRCA because of this (Suchman, 1995). These types of moral legitimacy are reflected in stakeholders' descriptions of TRCA:

> ENGO-2: people respect their ability on the research side, they know they're kind of fact based organization and have the resources to do that well
>
> ENGO-5: I think the first thing that comes to mind is that it is grounded in highly rigorous scientific evidence…grounded in really sound research so there's no question about the authority of their voice.
>
> PG-2: they provide all sorts of really good data, it's increasingly important as MNR is sliced to bits and the CAs have much more granular, ground truth, comprehensive data

> than the province now, basically, certainly in the more active CA areas including the TRCA.

Cognitive legitimacy is reflected by stakeholders who describe the TRCA as 'important or necessary or that they rely on the TRCA'. This is a type of cognitive legitimacy that Suchman (1995, 583) calls taken-for-granted legitimacy where an organization is so strongly associated with the role that they perform that their audience would think it impossible for the role to be performed by anyone else. For example, when one stakeholder was describing the TRCA they said:

> MG-8: I think they're a good research organization. I think that's really important for them to do that, we need that. We need that at the watershed level, we can't, *nobody else can provide that*, we can't, because we don't include the entire watershed and we cant go outside our boundaries [author's own emphasis].

This type of taken-for-granted legitimacy is the hardest to gain but it is also the most powerful in terms of sustaining an organization.

The cognitive legitimacy that the TRCA holds might reflect a reinforcing feedback loop (see section 2.2.2 Complex Adaptive Systems and Key Concepts), in which stakeholder perceptions of the TRCA as the only organization that can perform their core functions ensures that they continue to perform those functions, almost without question from stakeholders. Using a feedback loop to describe this system behaviour means its causes and effects can be understood as one and the same (Kay & Boyle, 2008). The perception of TRCA as the 'necessary' or 'relied on' organization to fulfill certain functions reinforces the cognitive organizational legitimacy they hold and its stakeholders continue to rely on the TRCA for knowledge and expertise, further solidifying its legitimacy. A feedback loop diagram helps explain this idea below, beginning

with the idea that stakeholders perceive the TRCA as legitimate (in the top left section of the feedback loop).

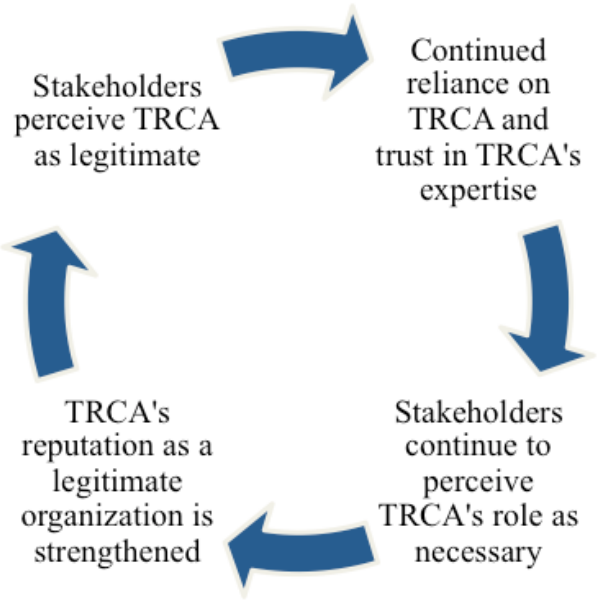

Figure 6. Feedback loop reinforces TRCA's legitimacy

The legitimacy that the TRCA holds as an organization (especially cognitive legitimacy) could be considered a very powerful attractor that keeps it in a certain state where its traditionally mandated actions are so strongly associated with the organization that it keeps the TRCA from moving into another state. Perceptions of the TRCA's legitimacy exist at the stakeholder scale, but as demonstrated by the organizational legitimacy literature, changes at this scale could affect the entire system if the TRCA were to lose some of its most powerful legitimacy in the eyes of stakeholders. The high level of legitimacy that the TRCA holds could also restrict the organization from making any major organizational change because of the risk of disrupting the legitimacy they have gained. Maintaining organizational legitimacy can be difficult (see section 2.3.3.1 Organizational Legitimacy) but strategies can be used to help maintain an organization's legitimacy. Legitimacy-maintaining strategies could help the TRCA make more informed

decisions and strategies relating to organizational changes. Understanding what type of legitimacy resonates most with each stakeholder group (as shown in Table 5) could help to target specific stakeholders in implementing any legitimacy-maintaining strategies.

If the TRCA has a good reputation as a legitimate organization, this might mean that there is increased support for the TRCA's actions as an organization (Lange et al., 2011). However, a good reputation can also work the opposite way for an organization and can mean higher stakeholder expectations leading to stakeholders being more critical of new actions by the organization (Lang et al., 2011). The following section describes a concern that was common among many stakeholders who were interviewed that could indicate they are critical of new actions by the TRCA.

6.3 Concerns About 'taking on too much'

Almost half of stakeholders feel that the TRCA is assuming too many responsibilities or taking on too many different projects. This was expressed mostly as a concern that the organization should not be taking on any more responsibilities or actions than they already do or that they should reduce their amount of current pursuits:

> MG-8: You know I don't really see them as needing to do more things out there, like adding to their mandate. I think they maybe even need to consolidate that a bit and think about how, go back to their core mandate
>
> ENGO-3: So there's all kinds of roles they play and sometimes I wonder, sometimes, is that scope way too big? You know, have they got way too much on their plate?
>
> MG-3: I think they're too thinly spread for the funding that they have available. I think they're constantly looking for funding sources to be everything to everyone. And I think that's a serious limitation.

Some stakeholders who feel that the TRCA might be taking on too much express that they think this is due to a municipal or provincial 'downloading' of responsibilities onto the TRCA for what should actually be government responsibility:

> NFPC-2: the TRCA has done so well for itself, it's eclipsed the environment departments for the different regions, okay. And that's always made me, it's just, it shouldn't have to be needed, you know what I mean? … maybe the TRCA is filling a void that should've been filled by others? … they have to figure out where their mandate is, rather than filling a vacuum

The concern about taking on too much isn't strictly about the TRCA only performing their core mandate responsibilities, some stakeholders who engage with the TRCA on newer sustainability initiatives and projects also express concern about the TRCA taking on too much, for fear of them neglecting the specific work that involves that stakeholder. Others whose work involves TRCA's core mandate also express this concern of the organization neglecting their role in which they work with the stakeholder:

> ENGO-1: They are almost performing these functions to the detriment of what I think is their core function which is really working on restoring the natural environment…I see 'living city' it takes me a while to go, oh right that's the old conservation foundation. So I feel a bit abandoned. I feel the natural environment, natural ecological services has been somewhat abandoned by the TRCA. And I fear that they will end up being stretched way too thin

This suggests that the TRCA is highly valued for the functions it provides to stakeholders and although this is a barrier to change because of stakeholder resistance (Peltokorpi et al., 2008), much of the current work that TRCA does is quite strongly supported, and this is emphasized by

their high levels of organizational legitimacy discussed in the previous section (section 6.3 Legitimacy).

There is expressed concern from almost every single stakeholder group (aside from academia) that the TRCA is taking on too much. The following chart (table 6) shows the number of stakeholders in each sector who express concern that the TRCA is taking on too much:

	TRCA taking on too much
Not for profit corporation	1
Private Industry	1
ENGO	3
Municipal Government	5
Provincial Government	1
Academia	0

Table 6. Stakeholders that feel TRCA is 'taking on too much'

According to the chart, there is less concern (comparatively to the total number) from ENGO's that the TRCA is taking on too much and this could be an avenue for building support or piloting projects. The stakeholder groups with lower representation on this chart (compared to the total number represented – see figure 2.) could be considered more 'salient stakeholders' who might be more easily motivated to support an organizational change initiative such as the TRCA's strategic plan. These stakeholders are important to identify because they have the ability to support an organization's change initiative, which can be highly useful (Peltokorpi, 2008).

To address the many stakeholder groups with concerns of this nature, a communication strategy that reassures stakeholders of the TRCA's continuing commitment to the projects and functions it provides despite a set of new strategies and directions could help put stakeholders at ease and make them less of a barrier due to resistance, and a stronger supporter of the TRCA's directions.

Introducing the idea of the change and creating a dialogue around it to ease wariness and distrust might also be a helpful strategy when dealing with stakeholders in this context (Peltokorpi et al., 2008).

6.4 Supporting Role

A final theme that emerged from the interview data was the number of respondents who considered the TRCA in a supporting role. This was mentioned in many different answers and in a variety of ways. This theme was organized into three categories: those responses that mention TRCA as a supporter of other organizations, for example:

> MG-7: I think it's sort of a supportive role, research role, program delivery role within areas of their mandate or that are very closely aligned to their core mandate.
>
> PI-3: So I think they're more into the initiatives, looking at new initiatives for sustainability that can lead to implementation by others.

Responses that mention the TRCA as a collaborator, coordinator or facilitator or different stakeholder groups, for example:

> PG-1: TRCA's an extra good adherent to bring stakeholders together, definitely in different levels of government. If you look at the work on the waterfront they brought the city, the province and the federal government all together like partners in these projects, partners in project green with the airport, world green building council, they are very good at bringing people together

Responses that mention the TRCA as a giving support, guidance or help to stakeholders, for example:

> PG-4: I think TRCA has actually been exceptional in terms of understanding how they can support us in advancing our program. Like they are very quick to respond to some of

these special requests we have around supporting other conservation authorities across the province in certain areas, providing guidance on things, helping us create tools that everyone can use

There is generally high representation at all stakeholder groups (accounting for the amount of stakeholders representing each sector) for each of these themes (see table 7).

	TRCA as a supporter of other organizations	**Coordinator, collaborator, facilitator for different stakeholders**	**Support, guidance, help to stakeholders**
Not for profit corporation	2	1	1
Private Industry	2	1	1
ENGO	3	2	1
Municipal Government	4	3	4
Provincial Government	3	2	1
Academia	1	1	1

Table 7. Stakeholders that feel TRCA plays a supporting role to others

This theme is reflective of the previous three themes. The perception of the TRCA as a supporting organization reflects the perceived legitimacy of the TRCA because it indicates that stakeholders trust the TRCA to provide guidance and help. It may also reflect the theme of concern over the TRCA 'taking on too much' as there were stakeholders who felt that the TRCA should be taking a supporting role instead of an executing role with many of their initiatives. The theme of diversity of stakeholder expectations is reflected here as well, with many responses indicating that TRCA is good at bringing different stakeholders together ('coordinator, collaborator, facilitator of different stakeholders').

The organizational image of the TRCA in a supportive role is widely held across stakeholder groups that were interviewed, suggesting that stakeholders see the TRCA as a supportive organization to theirs and other organizations regardless of which sector the stakeholder represents. According to the organizational identity literature, the perceived role of the TRCA as a supporter of other organizations could be considered a distinguishing attribute of TRCA's identity because it differentiates the TRCA from other organizations. Recognizing distinguishing attributes of an organization's identity is important because it can be harmful to an organization's actions or reputation if its actions are perceived as uncharacteristic of its identity (Whetten, 2006). Because of this, the perceived role of the TRCA as a supporter of other organizations could act as a strength of the organization as it distinguishes the TRCA among stakeholders, and it could allow the TRCA to bring together multiple interests or have influence throughout multiple stakeholder groups. It could also be a limitation to the organization because of stakeholder expectations of the TRCA to consistently perform this function, instead of a leadership role.

6.5 The Strategic Plan

In an attempt to ensure useful application of this research by the TRCA, after many rounds of coding, the decision was made to code answers for their responsiveness to the TRCA strategic plan. Although there were no specific questions asked about the strategic plan document, the researcher was interested to see how the strategies of the TRCA strategic plan resonated in stakeholders' answers about TRCA's current and future role in sustainability. The strategic plan, Building the Living City, is a new document that was released in 2013 by the TRCA and outlines their strategic goals for the future with twelve strategic directions (six leadership strategies and six enabling strategies). This document represents the new directions that TRCA is heading in

and signifies the recent desired changes for the organization, culminating in the final strategy; Facilitating a Region Wide Approach to Sustainability.

To analyze receptiveness to the strategic directions in the strategic plan, an analysis was done of all responses to question 7: 'What is your understanding of the TRCA's role in sustainability?' by coding responses into nodes represented by the twelve strategic directions outlined in the strategic plan. For reference, the twelve strategic directions are listed in the case study section of this paper (see section 3.4.3 TRCA Mandate). If responses mentioned terms or ideas that resonated with a strategic direction, it was coded at that node. For example, the following quotation was coded under the Leadership Strategy, 'Foster Sustainable Citizenship' node:

> ENGO-4: they're in a position where they've got a captive audience and there's a lot of people that come to TRCA facilities and the slight tweaking of language and whatever, you can use that to start getting people to start understanding that okay, part of getting to that sustainability is being involved in your community. … So that's my advice to the TRCA is do what you can to truly engage people to, and do it in a way that if not directly leads them then at least points them in a direction of empowerment, and I think that's a role that they can play.

This quotation was coded under the 'Foster Sustainable Citizenship' strategy because in their strategic plan, the TRCA indicates that a proposed action of this strategy is to "…establish new approaches that improve civic engagement and participation in decision-making related to watershed, program, facility and green space planning" (Toronto and Region Conservation Authority, 2014, p. 27).

A matrix query was then used to compare the number of stakeholders belonging to a specific sector whose responses reflected a specific strategy. The results are represented in two charts, one representing the leadership strategies and one representing the enabling strategies:

	Create complete communities that integrate nature and the built environment	**Foster sustainable citizenship**	**Manage our regional water resources for current and future generations**	**Rethink green space to maximize its value**	**Green the Toronto region's economy**	**Tell the story of the Toronto region**
Not for Profit Corporation	0	0	0	1	0	0
Private Industry	2	0	0	1	0	0
ENGO	0	1	1	1	1	0
Municipal Government	3	6	4	3	0	0
Provincial Government	2	0	1	0	0	0
Academia	0	0	1	0	0	0

Table 8. Stakeholders whose responses reflect different leadership strategies

	Facilitate a region-wide approach to sustainability	**Gather and share the best urban sustainability knowledge**	**Build partnerships and new business models**	**Measure performance**	**Accelerate innovation**	**Invest in our staff**
Not for profit corporation	0	0	0	1	0	0
Private Industry	0	1	0	0	0	0
ENGO	1	2	1	2	0	0
Municipal Government	4	4	2	0	0	0
Provincial Government	3	1	2	0	0	0
Academia	0	0	0	0	0	0

Table 9. Stakeholders whose responses reflect different enabling strategies

As can be observed from Tables 8 and 9, the roles that stakeholders view the TRCA fulfilling are most closely related to four of the leadership strategies; create complete communities that integrate nature and the built environment, foster sustainable citizenship, manage our regional water resources for current and future generations, rethink greenspace to maximize its value – as well as four of the enabling strategies; facilitate a region-wide approach to sustainability, gather and share the best urban sustainability knowledge, build partnerships and new business models and measure performance. The density of coding at the node representing the 'manage our water resources' strategy aligns with the majority of stakeholders who feel that TRCA's identity is related to their core mandate processes. The support for facilitating a region-wide approach to sustainability comes from ENGO's, municipal government and provincial government. Many of the stakeholders whose responses align with 'building partnerships and new business models' express the need for TRCA to diversify their funding sources and not be so tied to municipal funders. The high density of responses that aligned with 'gather and share the best urban sustainability knowledge' reflected the image of TRCA as a legitimate organization, as most responses cite the value of their knowledge and expertise when they express that TRCA should have a role in knowledge sharing. However half of those whose responses aligned with this strategy expressed a caveat that while the TRCA should share knowledge, information and ideas with stakeholders, they should refrain from any implementation role and leave that to stakeholders themselves. This reflects the role of TRCA as a supporting organization to others that was detailed in the previous section.

A characteristic of organizational identity is that it is enduring or lasting (Albert & Whetten, 1985). However, there are points in an organization's life cycle where its identity is salient.

Organizational identity can change if there is a change in the organization's structure, or if it loses something central to its identity (Albert & Whetten, 1985). The new policy documents, including the 10 Year Strategic Plan, could be associated with changes in the TRCA's structure. This means that the TRCA may be in a stage where organizational identity is salient, and where documents and perceptions of resulting actions from a strategic plan could have influence on the TRCA's identity. The strategic plan represents the TRCA's identity, and if stakeholder perceptions of the TRCA's identity do not match the identity that it is projecting of itself, this could lead to less support from stakeholders (Albert & Whetten, 1985).

From a systems perspective, this organizational stage, where the TRCA may be in a changing state and therefore their identity may be salient, could indicate that the organization is entering a back-loop phase of its system life cycle (Holling, 2001). A changing social and ecological environmental context, prompting a response from the TRCA in the form of updated policies and new strategic directions, then prompting a response among stakeholders with regard to their perception of the organization may be combining to create disturbances that necessitate reorganization, representing the back loop phase of the system (Holling, 2001). This means it is importance to manage for and understand the resilience and adaptive capacity of the TRCA (Walker et al., 2004).

6.6 Conclusions

The analysis of the data contributes to a more detailed system understanding of the situation. Possible system behaviours have been identified and described using concepts from organizational change and identity literatures. This analysis was intended to create the beginnings of a system description of the operating environment for the TRCA according to its stakeholder's perceptions of the organization. A systems perspective has made it possible to

understand the indirect effect that stakeholders, as a specific component of the system that act and influence between and across scales, might have on the actions of the TRCA by recognizing where possible feedback loops and attractors exist and where changes at different scales in the system could have unintended effects on the larger system itself.

This chapter has demonstrated that there are certain characteristics of the TRCA that are perceived by stakeholders to be distinctive to the organization's identity and image. However, the TRCA could be in a stage of organizational life that makes its identity salient. Organizational identity is heavily influenced by an organization's image (the outsider perspective of organizational identity) and it is stakeholder perceptions of the organization that will affect this (Gioia et al., 2014). The stakeholders interviewed hold powerful perceptions of the TRCA in the form of legitimating the organization, as well as characterizing distinguishing attributes of the TRCA's identity and common concerns about its direction.

The TRCA has been responding to the influences of their environment and what they see as a problem of declining environmental health that requires sustainability focused solutions, and this suggests possible changes in the organization's direction and structure (as evidenced by a new policy document and strategic plan). If indeed the organization is in the midst of a change, its identity may also be part of that change. The following chapter outlines a set of recommendations based on the analysis of the literature and the data that suggests how the TRCA might begin to navigate these changes.

Chapter 7. Recommendations

Each section of the analysis describes some theme relating to the TRCA's identity as an organization, whether through their diversity of stakeholders, their perceived legitimacy, the shared concern that they are taking on too much or their perceived role as a supporter of stakeholders. The analysis also describes the TRCA's 10-Year Strategic Plan in the context of organizational change. The following is a set of recommendations derived from the analysis of the findings that includes recommendations for the TRCA that are intended for practice, as well as conceptual and methodological recommendations and recommendations intended for further academic research.

7.1 Recommendations for the TRCA

The following recommendations are intended for consideration by the TRCA in practice.

7.1.1 Maintaining Legitimacy

Stakeholders indicate a common perception of the TRCA as a legitimate organization. It is important to understand this legitimacy from a systems perspective and TRCA's perceived legitimacy as a potential attractor. Conceptualizing the TRCA's perceived legitimacy as an attractor, which is holding it in a certain state, allows for the observation that system interactions at a certain scale (stakeholder perceptions) could actually be indirectly pressuring the system in a certain way (Kay & Boyle, 2008). Without acknowledging the potential importance of these interactions as a potential attractor, it could affect multiple scales of the system until it begins to permanently affect the structure of the entire system.

The TRCA's perceived legitimacy helps to strengthen the support from stakeholders of organizational actions by the TRCA, and so it is in the organization's interest to maintain their

perceived legitimacy. Maintaining legitimacy is less difficult than gaining or repairing legitimacy if it is lost (Suchman, 1995).

Strategies for maintaining legitimacy might involve perceiving changes that could affect legitimacy. Because legitimacy is largely determined by stakeholders, this strategy is focused on, "enhancing the organization's ability to recognize audience reactions and to foresee emerging challenges" (Suchman, 1995, p. 595). For the TRCA, this could build off of the results presented in this thesis. There are themes that emerged from the interviews that seem to be prevalent among stakeholders and the analysis presents these themes as they relate to specific stakeholder groups. This might enable the TRCA to foresee challenges in specific audience or stakeholder groups and better anticipate where challenges might emerge. Legitimacy maintaining strategies also include protecting accomplishments, which includes "stockpiling" support (Suchman, 1995, p. 596). This research helps to begin identifying those stakeholder groups that may be more supportive and receptive to TRCA's actions as an organization.

7.1.2 Stakeholders and Stakeholder Perception

Stakeholders are important in their influence on an organization's identity, relating to its capacity for organizational change and action (Peltokorpi et al., 2008). The TRCA has a diversity of stakeholders that they work and interact with due to the nature of their role. Given the influence of stakeholders on an organization's actions, stakeholder expectations and perceptions should be taken into account by the TRCA when deciding how to frame newer initiatives and actions. While there is a demonstrated comfortable acceptance among most stakeholders regarding the TRCA's core-mandated responsibilities, there still exists a popular attitude of unease at their newer directions and initiatives. Because of the potential power of stakeholders to affect the implementation of new directions (Hatch & Schultz, 2002) the TRCA should take seriously the

perceptions of their stakeholders and use this knowledge to carry out more informed and strategic actions relating to their intended directions (like those listed in the 10 Year Strategic Plan). This will improve the likelihood that actions will receive support from different stakeholder groups. A regular and consistent understanding, or 'perception-check', of stakeholder attitudes and understandings of the TRCA will benefit the organization.

7.1.2.1 Diversity of Expectations

The diversity of stakeholder expectations makes it difficult for the TRCA to move in any one direction as an organization, as there are multiple varying stakeholder pressures. Identifying these different stakeholder groups and their associated expectations could assist the TRCA in making decisions about implementing actions. For example, the TRCA can begin to assess where new initiatives, perhaps from the 10 Year Strategic Plan, would be better supported by a certain stakeholder group, and also where they might need to more carefully implement initiatives for certain stakeholder groups that might be less supportive or receptive. For example, private industry stakeholders are more receptive to the TRCA's strategy of 'creating complete communities that integrate nature and the built environment, but the TRCA's strategy of 'fostering sustainable citizenship does not resonate strongly with private industry stakeholders. The TRCA should not only continue to acquire a more detailed understanding of general stakeholder perceptions of the organization on a more regular basis, they should also ensure they understand the perceptions as they relate to specific groups of stakeholders.

7.1.3 Systems Approach

Using systems thinking to frame the research at the beginning revealed that the TRCA was unaware of how their stakeholders perceived the organization. This gap influenced the data collection and data analysis. Data analysis revealed systems behaviours that were further

explained in the context of organizations literature. The systems thinking approach allowed for useful insights that may not have emerged otherwise. The TRCA should continue to apply a systems approach to their organizational actions as it will lead to other insights that will help inform actions. The TRCA has embraced a systems approach to implementing their roles, as expressed in the Living City Policies (2014). However, continuing with a systems thinking approach for understanding their organizational dynamics would lead to further useful insights for organizational action and strategic decision-making.

7.2 Recommendations for Future Research

The following recommendations are intended for use in further research.

7.2.1 Organizational Change in Watershed Management Organizations

More research should be done on the uniqueness of organizational change in the context of an organization like the TRCA. Much of the literature on organizations focuses on either NGOs or private industry/corporations, both of which do not accurately represent the type of organization that is the TRCA. The reality of increased frequency of extreme weather events, a changing climate and increasing population and development is contributing to the declining health of Ontario's watersheds, and many of the world's watersheds as well (Lawford, 2011). Watershed management organizations and other similar organizations will be faced with having to adapt and change, and more research is needed to understand the barriers and opportunities for organizations in this context. This might include further research in specific organizational concepts such as identity, image, reputation and stakeholders as they relate to watershed management organizations specifically.

7.2.2 TRCA's Legitimacy

A significant finding from the data indicated that according to stakeholder perception, the TRCA is viewed as a highly legitimate organization. This view is shared across all groups of stakeholders. Stakeholders who disagree with some of the TRCA's actions or who do not work well with the TRCA still express that the TRCA holds organizational legitimacy for their core mandated roles. Further research could explore this theme of organizational legitimacy within the TRCA, including the origin of it and whether it is as a result of the TRCA's historical trajectory, as well as how pervasive the attitude is among a broader group of stakeholders such as the general public.

7.2.2.1 Legitimacy and Watershed Management

Further research might also be useful in exploring the theme of organizational legitimacy as it relates to other conservation authorities in southern Ontario and even other watershed management organizations more generally. Organizational legitimacy can lend support and strength to an organization's actions. It can also act as a barrier to organizational change or new actions because of stakeholder expectations associated with an organization's legitimacy (Suchman, 1995). This makes it an important concept to explore for the purposes of informing watershed management organizations that are facing organizational change. Further, it would be useful to explore whether organizational legitimacy is unique to the TRCA or whether it is common among other conservation authorities or even among other watershed management organizations beyond the southern Ontario context. If other conservation authorities or watershed management organizations hold similar legitimacy according to stakeholders, this could better inform their actions and contribute to better strategic decision-making.

7.2.3 Internal Perception Check

Organizational identity is both an internal and external construct. Organizational identity is externally constructed as organizational image, reflected by the views of an organizational audience such as a group of stakeholders (Ginzel et al., 1993). In this research, the external construction of the TRCA's identity was analyzed. However, a complete picture of organizational identity must include the perceptions of organizational insiders. There are important reasons for understanding the internal perceptions of an organization's identity. The way that an organization thinks outsiders perceive it can be problematic if this understanding differs from the way it is actually perceived by outsiders (Albert & Whetten, 1985). The themes that emerged from stakeholder perceptions of the TRCA (legitimacy, concerns about taking on too much, supporting role, diversity of expectations) may or may not also be reflected by internal staff perceptions of the organization. For example, it might be worth understanding if the strength of the narrative of legitimacy of the TRCA's core responsibilities is also expressed by those internal to the organization, to understand if they are perhaps reinforcing this idea in their interactions with stakeholders.

As part of the pilot interviews, two members of TRCA internal senior staff were interviewed (see section 4.3.3 Pilot Interviews). While the sample is not significant enough to draw conclusions, initial observations suggest that the TRCA may be aware of their perceived legitimacy and trustworthiness in their core mandate activities among stakeholders. They also seem to be aware of the diversity of their stakeholders and those stakeholder's expectations. However, the small source of data suggests that there is a discrepancy in how the TRCA views their role in sustainability compared to how their stakeholders perceive their role. Based only on these two internal interviews, the TRCA views their organization in more of a leadership role on matters of

sustainability rather than a supporting role. It would be useful to pursue a larger sample of internal participants to determine how strongly the TRCA shares this view of their role as leaders in sustainability rather than supporting other organizations as leaders in sustainability, because it could lead to better strategic decision making by the TRCA regarding their sustainability initiatives. Therefore further research should pursue an internal perception check to compare views held by stakeholders with views held by internal staff, and to check if views of stakeholders align with what internal staff believes to be the views of stakeholders.

7.3 Conceptual and Methodological Recommendations

The following recommendations are pertaining to the literature that was used in this research.

7.3.1 Social Innovation and Stakeholders

This research has attempted to demonstrate the value of considering stakeholder perceptions in organizational change processes. Stakeholder perceptions of an organization can have significant effects on an organization's identity and image. Organizational change is similar to social innovation in that organizational life cycles are similar to the adaptive cycle (see figure 1 in section 2.2.2 Adaptive Systems and Key Concepts), both cycles representing stability, release and reorganization phases (Holling, 2001). Social innovation is concerned with the potential for innovation in change processes that are occurring at the back loop phase of the adaptive cycle as well as in incremental changes in the front loop phase. Social innovation also considers the importance of identity and image for potential innovation processes, either individually or organizationally. In this case, many stakeholders expressed an attachment to a certain identity of the TRCA that reflected its traditional mandate, and this attachment was strengthened with perceptions of legitimacy regarding traditionally mandated activities. However, it limits the

TRCA in taking on a leadership role in the newer directions they intend for the organization, possibly limiting their social innovation potential. Stakeholder perceptions are an important part of organizational identity and image, and therefore have an important influence on change processes and the opportunity for innovation. The importance of stakeholder perspectives during organizational change processes is something that relates significantly to social innovation literature and further exploration of the importance of stakeholder perception and subsequently organizational identity for social innovation processes could be a useful conceptual addition to the social innovation literature.

7.3.2 Participatory Action Research Reflections

The participatory action research approach taken in this research had both benefits and potentially negative implications (see Chapter 4, section 4.5.1 Ethical Issues and section 4.5.1.1 Participatory Action Research and Ethical Issues). However, upon final reflection of the usefulness of the methodology, it is still beneficial despite the challenges it presented throughout the research process. Although the participatory approach resulted in a very narrow stakeholder sample, the overall research question and direction owes its existence to the participatory action research framework. Had this framework not been used, the issue of stakeholder perceptions might never have been raised and the realization of a knowledge gap that was expressed as important may have not emerged. Following a participatory approach in which the research pursued the perceptions of stakeholder led to important insights for the TRCA in their operations and their overall organization strategies. It also led to a broader understanding of important aspects of organizational success such as identity, legitimacy and reputation.

A participatory action research approach also prioritized the usefulness of this research to the organization throughout the process, ensuring that the recommendations and conclusions drawn

would be useable and meaningful. This outcome has meant that the research was a positive experience for the TRCA and further collaborative research with the organization is welcomed (according to the researcher's own personal experience with TRCA participants following the research process).

The reflection on a participatory action research approach applied in this research context did help to identify and confirm the power hierarchies that exist by considering the specific challenges related to the approach.

In this researcher's experience, the benefits of a participatory action research approach outweigh the challenges. A participatory approach helped to identify relevant issues and concerns that would benefit from collaborative research. However, further research in this context should acknowledge the issues of representation and employ a more critical approach to participatory research by setting expectations with research participants from the beginning (Kesby et al., 2007). Strategies to include a more diverse set of interests and voices will counter the unwanted effect of participatory research reinforcing existing regimes.

Chapter 8. Conclusion

This research was inspired by a systems mapping exercise that revealed a gap in knowledge within the TRCA: the TRCA was unsure of how their stakeholders viewed them and whether this had implications for what kind of role they can play in addressing problems of sustainability in the region. This research was intended to determine stakeholder perceptions of the TRCA and understand in what capacity these perceptions might affect the TRCA as it moves forward as an organization. Stakeholders were chosen collaboratively with individuals from the TRCA and the academic research team. The chosen stakeholders were interviewed using semi-structured interviews to determine their perceptions of the TRCA. The interviews were transcribed verbatim and analyzed using concepts from systems thinking and organizations literature.

The findings and analysis demonstrate several major themes in how the chosen stakeholders view the TRCA. Stakeholders view the TRCA as a legitimate organization, and most of this legitimacy is related to the TRCA's traditionally mandated responsibilities. This legitimacy could be described as a feedback loop (see section 2.2.2 Complex Adaptive Systems and Key Concepts) in which the more stakeholders perceive the TRCA as necessary, the more they will continue to rely on the organization and reinforce their ideas of the necessity of the TRCA thus strengthening its legitimacy (see Figure 6 in Section 6.2 Legitimacy).

Further to this, the TRCA's perceived legitimacy can also be considered a very powerful attractor that holds the organization in a certain state where it is obligated to fulfill stakeholder expectations related to its perceived legitimacy. Maintaining this legitimacy is also an important strategic action for the TRCA, as it strengthens stakeholder support of organizational actions. It is also very difficult to either gain or repair the type of legitimacy that stakeholders associate with the TRCA; so maintaining it is likely the better decision. Maintaining legitimacy can be

difficult however, because it involves relationships with stakeholders who may be diverse in their expectations (Suchman, 1995). This is the reality in the TRCA's case, as the organization interacts with a variety of different stakeholders whose diversity of expectations can pull the TRCA in opposing directions. A clearer understanding of the differences in expectations between different stakeholder groups may assist the TRCA in maintaining their legitimacy across all stakeholder groups. Understanding the differences in stakeholder expectations may also assist the organization in their strategic decision-making and when implementing new actions. This could be done (as demonstrated in Chapter 6: Analysis, Section 6.6 The Strategic Plan) by using stakeholder perceptions of the TRCA to inform receptiveness among different stakeholder groups to different actions presented in the TRCA's 10 Year Strategic Plan.

Some stakeholder expectations and perceptions seem to be universal across different stakeholder groups. This of course includes the perception of the TRCA as a legitimate organization, which was commonly shared among almost all stakeholders who were interviewed. Stakeholders in general also view the TRCA as having a supportive role as an organization. Regardless of the context in which stakeholders interact with the TRCA, the view is widely held that the TRCA has a supporting role to play in helping other organizations or stakeholders achieve their mandate, or as a coordinator and facilitator of different stakeholders. This perception should be paid particular attention by the TRCA simply because it is expressed by a majority of stakeholders, but also because it could be used as an opportunity for the TRCA to implement specific actions that require the coordination of multiple stakeholder groups. Stakeholders also seem to express a common concern regardless of which stakeholder group they represent. This concern is most often expressed as the TRCA 'taking on too much' and is often related to a stakeholder's worry that the TRCA will neglect actions or responsibilities that the stakeholder is

concerned about. The new policy documents that the TRCA is now working from represent some changes to past organizational responsibilities by adding new actions and strategic directions to the organization's mandate. The concern that the TRCA is taking on too much will likely be amplified by stakeholders in the resulting actions of these new policy documents by the TRCA. This could threaten the TRCA's reputation as a legitimate organization and the stakeholder support that is associated with the perceived legitimacy. The TRCA should take this concern seriously especially considering their revised strategic directions and the new actions that accompany these directions.

This research contributes to a better understanding of the 'system' in which the TRCA operates. This understanding should help the TRCA in its strategic decision-making and in the implementation of organizational actions. The TRCA's updated policy documents incorporate traditionally mandated responsibilities along with new sustainability-focused pursuits. These documents reflect the TRCA's understanding of the need for broader sustainability initiatives in order to address watershed issues. However, the perceptions of their stakeholders reflect themes that may pose a challenge to the TRCA in implementing newer sustainability pursuits. The more aware the TRCA is of these stakeholder perceptions, the better informed they are of the system dynamics that may be affecting their actions and can then strategize for successful implementation of the goals and action items from their updated policy documents.

The larger system, in which the health of watersheds is declining, applies to conservation authorities in all of southern Ontario. While all of southern Ontario's conservation authorities are unique from one another in terms of size, scale and influence (Lord, 1974; Thomson & Powell, 1992; Mitchell et al., 2014), the challenge of addressing a changing environmental context in which watershed health is declining is relevant to each of the authorities. All conservation

authorities, regardless of size, have a variety of stakeholders that are influential to the organization's actions. Applying this type of systems analysis that invokes organizational literature concepts to analyze stakeholder perceptions would be a useful and revealing exercise for any of Ontario's thirty-six conservation authorities.

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APPENDICES

APPENDIX 1

Conservation Authorities Act, Section 21, 2011

Powers of authorities

21. (1) For the purposes of accomplishing its objects, an authority has power,

(a) to study and investigate the watershed and to determine a program whereby the natural resources of the watershed may be conserved, restored, developed and managed;

(b) for any purpose necessary to any project under consideration or undertaken by the authority, to enter into and upon any land and survey and take levels of it and make such borings or sink such trial pits as the authority considers necessary;

(c) to acquire by purchase, lease or otherwise and to expropriate any land that it may require, and, subject to subsection (2), to sell, lease or otherwise dispose of land so acquired;

(d) despite subsection (2), to lease for a term of five years or less land acquired by the authority;

(e) to purchase or acquire any personal property that it may require and sell or otherwise deal therewith;

(f) to enter into agreements for the purchase of materials, employment of labour and other purposes as may be necessary for the due carrying out of any project;

(g) to enter into agreements with owners of private lands to facilitate the due carrying out of any project;

(h) to determine the proportion of the total benefit afforded to all the participating municipalities that is afforded to each of them;

(i) to erect works and structures and create reservoirs by the construction of dams or otherwise;

(j) to control the flow of surface waters in order to prevent floods or pollution or to reduce the adverse effects thereof;

(k) to alter the course of any river, canal, brook, stream or watercourse, and divert or alter, as well temporarily as permanently, the course of any river, stream, road, street or way, or raise or sink its level in order to carry it over or under, on the level of or by the side of any work built or to be built by the authority, and to divert or alter the position of any water-pipe, gas-pipe, sewer, drain or any telegraph, telephone or electric wire or pole;

(l) to use lands that are owned or controlled by the authority for purposes, not inconsistent with its objects, as it considers proper;

(m) to use lands owned or controlled by the authority for park or other recreational purposes, and to erect, or permit to be erected, buildings, booths and facilities for such purposes and to make charges for admission thereto and the use thereof;

(m.1) to charge fees for services approved by the Minister;

(n) to collaborate and enter into agreements with ministries and agencies of government, municipal councils and local boards and other organizations;

(o) to plant and produce trees on Crown lands with the consent of the Minister, and on other lands with the consent of the owner, for any purpose;

(p) to cause research to be done;

(q) generally to do all such acts as are necessary for the due carrying out of any project. R.S.O. 1990, c. C.27, s. 21; 1996, c. 1, Sched. M, s. 44 (1, 2); 1998, c. 18, Sched. I, s. 11.

APPENDIX 2

TRCA Project Interview Questions:

1. From your perspective, how is Toronto (and the GTA) doing as a city?
    - If you were to rate on a scale of 1-10, what would its number be?
    - Environmentally, socially, economically?
    - Compared to other major urban centres?

2. How do you see the TRCA? How would you describe its identity?

3. Please describe any interactions you or your organization has had with the TRCA?
    - How is the TRCA typically involved in the work of your organization?

4. Is there any function that you feel the TRCA fulfills exceptionally well? Is there any function that leaves much room for improvement?
    - What are the TRCA's strengths or areas of weakness?
    - What unique resources/skills does the TRCA bring to the table?

5. What is your understanding of the concept of sustainability? What does it mean in Toronto and the GTA?
    - What would a sustainable Toronto Region look like?

6. Which organizations are or should be pivotal in the movement toward sustainability in Toronto and the GTA?
    - What is happening in the broader area of sustainability that you think is most relevant to the Toronto Region in terms of practices and approaches?
    - Which organizations do you see as being most innovative? What makes these organizations innovative according to you? (definition of 'innovative')

7. What is your understanding of the TRCA's role in sustainability in the Toronto and the GTA?
    - Are you familiar with the TRCA's "Living City" vision?
    - What is your understanding of the TRCA's current and potential future role for building sustainability in the GTA?

8. Who else should I speak to about this?

9. What documents should I read?