AN EVALUATION OF ALBERTA'S INTER-MUNICIPAL COLLABORATIVE FRAMEWORK INITIATIVE RELATIVE TO THE WILDFIRE RISK AND PRINCIPLES OF GOOD GOVERNANCE

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ABSTRACT

With the continued increase in wildfire incidents, the last few decades in Canada have seen increased costs related to wildfires, and different levels of government and agencies are beginning to see the need for a more collaborative approach to wildfire management. This research evaluates the existing collaborative framework and capacity on wildfire handling across mitigation, emergency response, and post-event recovery between municipalities in Alberta. The study relied on the analysis of 26 completed Inter-Municipal Collaboration Frameworks (ICF) and 15 Inter-municipal Emergency Services Agreements (IESA) in Alberta. Based on these documents' content analysis, the study revealed a long-existing history of collaboration among municipalities, indicating appreciation for inter-municipal collaboration. It also reveals a well-articulated system regarding collaborative instruments for emergency responses compared to the other domains of wildfire examined. Overall, the study indicated a strong existing collaborative structure and capacity as collaborative instruments show high conformity with the Principle of Good Governance.

ACKNOWLEDGEMENTS

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DRP   Dispute Resolution Process
GMB   Growth Management Board
ICF   Inter-municipal Collaborative Framework
IDP   Inter-municipal Development Plan
IESA   Inter-municipal Emergency Services Agreement
IS&C   Information Sharing and Communication
KDS   Key Dimensional Structure
KPI   Key Performance Indicators
MGA   Modernized Municipal Government Act
NRCAN   Natural Resources Canada
OI   Operational Indicators
PGG   Good Governance Principles
QDA   Qualitative Document Analysis
RPC   Regional Planning Commissions
WUI   Wildland-Urban Interface

CHAPTER 1: INTRODUCTION

1.1   Introduction

In the last century, vast resources have been channeled toward understanding and managing fire in forests (Cochrane, 2003). Research has shown that resource management agencies commit substantial resources to wildfire suppression (Martell, 1994). In Canada, and elsewhere, different approaches and various measures have been employed to combat wildfire over the years. These measures keep evolving, especially given the changing nature of wildfire regarding frequency, intensity, and necessary administrative needs.

The last few decades have seen an increase in costs related to wildfires. As a case in point, over the past decade alone, the Canadian wildland fire management agencies invested between $800 million and $1.4 billion annually on protection against wildfire (Government of Canada, n.d.). In addition, the Insurance Bureau of Canada report estimated the Lesser Slave Lake Regional Wildfires, damage insurance claims at over $700 million (KPMG, 2012). Likewise, according to the Insurance Bureau of Canada, the "Horse River wildfire of 2016 in Fort McMurray, Alberta " also recorded insured losses of about $3.7 billion (MNP, 2017).

The research literature on wildfire hazard is extensive. Numerous studies have shown that a variety of factors influence wildfire and the approach adopted for wildfire management (Bhandary & Muller, 2009; Kocher & Butsic, 2017; Paveglio et al., 2017; Sturtevant et al., 2009). Prominent among these factors is the issue of climate change; the need to mitigate the catastrophic wildfire episodes across the globe; the adverse effects of wildfire on human populations, properties and ecosystems; and the significant public policy concern about wildfire that requires reflection and action. In addition, population growth at the wildland-urban interface (WUI) has contributed to the ever-increasing concern of wildfire risk and added considerably to the complexity surrounding mitigating wildfire risks (Brunson & Tanaka, 2011; Calkin et al., 2014; Cameron et al., 2009;

Hammer et al., 2009; Marlon et al., 2009; and Radeloff et al., 2005). Therefore, the need to harmonize and coordinate efforts across multiple jurisdictional boundaries is clear.

This study bridges an interest in wildfire and cross-jurisdictional collaboration at the local level, which, for the purposes of this study, will be referred to as inter-municipal collaboration. Furthermore, the study aims to present a comprehensive evaluation of the existing structure of the wildfire collaborative framework. This evaluation may help address the issue of wildfire management and wildfire generally. Specifically, this study aims to evaluate the capacity of municipalities in Alberta to coordinate between-municipality wildfire management efforts. This capacity is evaluated with respect to three distinct phases of wildfire hazard, namely: mitigation, response, and recovery. Essentially, this research aims to better understand the collaborative endeavors relating to wildfire management in the province, and to outline and define an evaluation tool that could potentially be employed in situations other than wildfire management.

1.2   Context for Research Problem

The physical extent of wildfires has a significant impact on both human populations and ecosystems (Paveglio et al., 2016). Estimates of the total global area affected by wildfire annually vary from as low as 300 to as high as 450 million hectares (Randerson et al., 2012; Van der Werf et al., 2006). Further, several studies have raised concerns that the frequency, severity, and spatial extent of wildfires have been increasing (Crimmins et al., 2016; Davis et al., 2014; Stavros et al., 2014). In particular, Flannigan et al. (2009) noted how it is expected that Canadian fire management practices in the near future would be influenced by emerging issues like "climate change, expanding wildland-urban interface, declining forest health and productivity, competition for the forest land base, growing public awareness and expectations, and a declining forest fire management infrastructure and capability."

Across the fire-related literature, there is a growing call for a different approach to wildfire

management and coordination. One of these approaches involves the networks of multiple organizations and inter-organizational relations across various disciplines and jurisdictions (Boin & 't Hart, 2010; Hilliard, 2000; Kapucu, 2008). Many analysts have posited the value of greater cross-jurisdictional collaboration generally and with respect to the wildfire hazard in particular. For instance, Miller and Ahmad (2000) argued that inter-agency, professional, and cross-sector collaboration and partnership in public service delivery are critical policy goals worldwide. Sullivan and Skelcher (2003) have described partnership as the global "new language of public governance." In addition, Jakes et al. (2004) note that collaboration among different agencies, organizations, groups, and individuals at all levels of government is essential for wildfire management success.

Managing the risks associated with wildfire hazards and marshalling and coordinating the necessary resources is further complicated because wildfire is indiscriminate in its fuel consumption and its failure to recognize political boundaries. Consequently, efforts to mitigate the risk of fire, responding to wildfire, and mounting community recovery efforts typically cut across multiple jurisdictional boundaries (Dombeck et al., 2004; Steelman & Burke, 2007; and Stephens & Lawrence, 2005).

1.3   Background/ Historical Context on Research Problem

Wildfire itself is not new in Alberta or generally, as it is a naturally occurring ecosystem process. However, the changing character, vis-a-vis the size, scope, and frequency of wildfires in recent decades, has heightened concern among the public and policymakers (Boin & 't Hart, 2010). Also, to understand the complexity of wildfire and what now makes wildfire more critical is the fact that this change in character does not occur in isolation but is somewhat influenced by how elements such as fuel, climate-weather, ignition agents, and people shape fire activity (Flannigan et al., 2005). The Lesser Slave Lake Regional Urban Interface Wildfire in 2011, and

the 2016 Horse River Wildfire in the Regional Municipality of Wood Buffalo, created a different

perception of wildfire and emergency management across Alberta. The successful handling of

those incidents relied on inter-agency emergency response coordination as part of the response and

recovery strategies and mechanisms to combat it. Different agencies collaborated to resolve the

issue (KPMG, 2012; MNP, 2017). Notwithstanding this observation, a post-event review

conducted on behalf of the Government of Alberta by the consulting firm MNP (2017),

encouraged further collaboration among agencies and recommended establishing a joint Wildfire

Planning Task Team comprising senior Agriculture and Forestry staff and major industrial

stakeholders. These two incidents provide a historical perspective on how to contextualize wildfire

and its handling and how collaboration has functioned in handling wildfires and recovery.

The experience from the fire incidents mentioned above, other public administrative

concerns, and, most importantly, the reality on the ground, make it pertinent to create an

emergency capacity that will effectively manage and handle wildfires. It is encouraging that in

2018 the provincial government mandated Inter-municipal Collaborative Frameworks (ICFs) to

address how some essential services, such as wildfire, which falls under the emergency services

provision, are funded and delivered (Government of Alberta, n.d.). This initiative in the province

of Alberta is consistent with the position advanced by Rayle and Zegras (2013), and which Bryson

et al. (2006) describe as "linking mechanisms or external trigger," and Gray (1989) suggests

maybe what prospective partners need to access their circumstances and even think about

collaboration.

1.4   Research Objectives

This research addresses two objectives. The first objective is to evaluate the existing inter-

municipal collaborative capacity relative to managing wildfire hazard. The second objective is to

use the evaluation results to suggest areas for improvement. To meet the first objective, it will be

necessary to develop a framework to guide the evaluation. This framework, which draws heavily

from the United Nations "Good Governance Principles" (Graham et al., 2003), is outlined in

Chapter Two.

The research focuses on elements necessary for the operational and structural cooperation

among agencies and across jurisdictions between municipalities in Alberta. This study uses a

selection of recently completed ICFs and existing inter-municipal emergency services agreements

(IESAs) identified in the selected ICFs. Analyses of these documents are employed to investigate

the provisions in the cooperation concerning wildfire management relative to mitigation, response,

and recovery. The research will assess how robust these ICFs are and identify any deficiencies in

the existing collaborative structures relative to managing wildfire hazards in the Province of

Alberta.

To meet the overarching goal of this research, it was necessary to develop an evaluation

framework by constructing a normative model against which Alberta's institutional arrangements

designed to facilitate inter-municipal collaboration (i.e., ICFs and related agreements) can be

assessed relative to managing wildfire hazard. That framework, which is detailed in Chapter 2,

draws on a set of "Good Governance Principles" developed by the United Nations.

1.5   Justification for the Research Objectives

In addition to contributing to the literature on wildfire management, this study will offer a practical

contribution to understanding the policy regarding collaborative practices at the municipal level

and provide an overview of the temporal trajectory and evolution of provincial policies on

regional-scale planning in Alberta. Specifically, this research is relevant because collaboration is

now a legislated requirement mandated by the Alberta provincial government under section

708.28, part 17.2 of the "Modernized Municipal Government Act (MGA)" (2016). Given that

ICFs are not optional, there is a pressing need for a comprehensive collaboration framework on

wildfire mitigation, recovery, and response, among other municipal services.

The challenging nature of problems faced by public organizations requiring collaboration across organizational boundaries (Mitchell et al., 2015), as well as the "changing configurations and expectations of the state" (Sullivan & Skelcher, 2003), justify the stated research objectives. Further justification is derived from the frequently expressed desire for "new and innovative approaches to service delivery, as well as the desire for improved outcomes, motivating public leaders to seek collaboration with other agencies actively" (Agranoff & McGuire, 2001). Likewise, the need to identify ways in which opportunities for fast and efficient outlets for information sharing between organizations can be developed (O'Leary et al., 2012), as outlined by Mitchell et al. (2015), adds further relevance to this research. Finally, the thesis also considers other factors that are now recognized as crucial reasons for developing collaborative frameworks. These include a range of factors outlined by Sorensen and Torfing (2017), including "fiscal constraints" (Pollitt, 2010), "the proliferation of wicked and unruly problems" (Koppenjan & Klijn, 2004; Roberts, 2000), and "citizens' growing distrust of democratically elected governments" (Levin et al., 2012; Macmillan & Cain, 2010; Norris, 2011).

1.6 Thesis Organization

This thesis comprises five chapters. Chapter two presents the background to the study and touches briefly on wildfire management and regional planning policy in Alberta. It also presents an overview of collaboration ideas, including perspectives on collaboration, contexts of collaboration, the identification of good collaboration, factors impacting successful collaboration. This overview is then used to develop, as the first key objective of the thesis, an evaluative framework to assess existing collaborative structures (ICFs) in Alberta. Chapter three focuses on the geographical context of the research, analytical methods, data collection strategy, and data analysis processes. Chapter four presents a descriptive summary of the results from both data from

key documents. Chapter five first discusses the empirical findings relative to the extant literature. It concludes the thesis by revisiting the stated objectives, summarizing the key findings, and identifying the limitations of this study. It also provides policy and evaluation recommendations and suggests future research directions.

CHAPTER 2: BACKGROUND TO STUDY

2.1   Introduction

As a government policy, the ICF initiative is generating mixed reactions across the province, especially within the planning field, among politicians and at the municipal level of government, among others. This chapter provides background information about the key elements of this study. The first step involves examining and reviewing relevant literature on i) wildfire management, ii) ICFs within the context of planning in the province, and iii) collaboration. The second step deals with developing an evaluative framework to achieve the objectives of this research.

2.2   Wildfire Management

The research literature on wildfire hazards is broad. It contains contributions from several disciplines including forestry, ecology, planning, geography, risk management, and health and safety. Within the wildfire literature, it is possible to identify three distinct lines of inquiry. The first, and oldest and the largest area of research, consists of contributions from renowned forestry and wildfire scientists. The second line of inquiry consists of the work of ecologists, environmentalists, geographers, and other scientists concerned with the effects of wildfire on various biophysical systems. A sub-theme within this area of research investigates wildfire's ecological and environmental consequences relative to various climate change scenarios. For instance, several avenues of research have explored how climate change impacts wildfire in recent years and vice versa. The third line of inquiry deals with various human dimensions of wildfire, including the social, economic, and psychosocial factors surrounding wildfire prevention, management, post-disaster recovery, and health and psychological impacts such as post-traumatic stress disorder (PTSD). It is within this third avenue of research that this study is situated. This

discipline categorization is included for perspective on diversity of research literature on wildfire hazards as individual review in not included this study.

Within the body of literature on wildfire human dimensions, wildfire handling and management have been addressed under prevention, mitigation, preparedness, response, and recovery phases. In this field, McCaffrey et al. (2013) identify four thematic groupings of research contributions and offer conceptual differences and linkages. The first group focuses on pre-fire mitigation and preparedness like wildfire risk perception, assessment and reduction, and mitigation measures and programs. The second group deals with the community-agency dynamics involved in managing wildfires at various wildfire phases and this includes community-agency interaction r collaboration, trust, and communication outreach. The third group explores actions and responses during and after a wildfire event which covers command structure and community-agency and response during and after a wildfire event. McCaffrey et al.'s fourth group examine institutional considerations relative to policy, planning, and organizational effectiveness in wildfire management. The broad literature on wildfire and the general consensus on the need for wildfire management attests to its relevance and reasons for the considerable attention from land managers, researchers, and the general public.

2.3   Brief History of Planning Policies in Alberta and the ICF Initiative

This section provides a historical review of events and understanding of regional planning practice, evolution, and institutional frameworks in Alberta in order to establish the significance of this study and the implication on the ICF initiative. Planning and its evolution in Alberta are important backdrop to the ICF. Given the evolution and circumstances leading to the changes, Gordon and Hulchanski (1985) assert that the province of Alberta's planning evolution presents a compelling case study for several reasons. One reason is that Alberta is one of Canada's fastest-

growing regions and, compared to other provinces, it has a longer and more drawn-out existing institutional framework of planning instruments and agencies. The province has experienced the significant effects of boom-and-bust cycles on its economy, and it is also one of the first provinces in the country to implement regional-scale planning. This is relevant and interesting to see the province after all the changes economically and politically introducing what seem like regional planning with the ICF initiative.

Some studies on the historical aspects of planning in Alberta focus on the inception of planning acts in the province, while some others examine the eras of critical changes to the acts. For example, Taylor et al., (2014) divided these changes into two eras: 1950, to 1995, and 1995, to 2014. However, since that study, there have been remarkable changes in planning in Alberta, especially in regional planning from 2016 to the present. These changes, among other things, reflect political dynamics and decisions, economic processes and trends, and rural-urban dynamics.

In 1913, the Alberta Planning Act was adopted, and through the years, it has been revised several times (Gordon & Hulchanski, 1985). From an institutional framework perspective, the revised Planning Act of 1929 authorized the formation of a comprehensive system of local, regional, and provincial planning instruments and agencies (Gordon & Hulchanski, 1985). Within its mandate, the act "provided authority for municipal adoption of master plans and zoning bylaws, the establishment of local planning commissions and, in the case of two or more municipalities, permitted the establishment of the district (or regional) planning commissions" (Gordon & Hulchanski, 1985, p. 3). The district planning commissions were later changed to regional planning commissions (RPC) in the 1963 act.

Robinson and Webster (1985, p. 23) point out that, with activities dating back six to seven decades, regional planning has come a long way as, "as a conscious, formal activity of government

in Canada." From a regional planning perspective, Hodge and Gordon (2014, p.187) state that regional planning deals with various activities within the built and natural environment, including social-economic dealings in a large area such as cities and towns. Additionally, on the roots of regional planning, the authors added that the two essential principles to regional planning are (i) there is a need for a comprehensive approach to regional problems, and (ii) a need to create mutually beneficial relationships between areas through the coordination of planning activities between adjoining areas. Regional Planning is generally characterized by the involvement of more than one government level (Hodge & Gordon, 2014). Robinson and Webster (1985) noted that in Canada, the provinces that oversee regional planning, as specified in the British North America Act of 1867 and the Constitution Act of 1982. It also listed regional planning tasks to include: the design and administration of development strategies at the provincial level; the coordination of decentralized provincial administrative roles through established regional offices; and the initiation of a hierarchical planning process at the province level including a policy framework, regional plans, and local plans.

Regional planning witnessed more activities defined by "new legislation" in the 1950s and 1960s (Robinson & Webster, 1985). In Alberta, just as in other provinces, the evolution of regional planning has been incremental, with specific measures introduced as a necessary response to identified issues (Gordon & Hulchanski, 1985). Within regional planning, two fundamental types of planning are prominent. These are regional development planning, and regional land use planning, each with a different focus, purpose, set of actors, and established structure (Robinson & Webster, 1985). Provincial-level regional planning activity has seen significant changes and is better understood through a timeline of key changes and events.

According to Taylor et al., (2014), up until around 1950, the RPC was the provincial means of managing urban development. The RPC was funded by the provincial planning fund (PPF). The

planning commissions were expected to foster a cooperative approach to regional planning, but

were anything but cooperative (Jwiehler, 2019). Examples include the urban and rural

municipalities' borders conflicts, the division between urban and rural municipalities on the

concept of regional planning with urban in support and rural opposing because some feel regional

plans are "constrictive and dictatorial" (Jwiehler, 2019). After many years of the slow erosion of

regional planning initiatives, in 1994, the Progressive Conservative government led by Premier

Ralph Klein dismantled just about any semblance of regional-scale planning (Hodge & Robinson,

2001) and reduced the level of provincial oversight of regional plans. With these measures, the

MGA was revised in 1995 to end officially regional plans and RPCs, leading to a prevailing

system of voluntary mechanisms of inter-municipal cooperation (Jwiehler, 2019). This policy

change signaled change in priorities of the government and was attributed to the economic

recession of the early 1990s, generating the rising tensions between urban and rural municipalities

over the function of regional planning commissions (AUMA, n.d.; Jwiehler, 2019). With that

measure municipalities are at least expected to consult with neighboring regions when preparing

plans; also, two or more municipalities are encouraged to develop joint "inter-municipal

development plans" for border areas to promote communication between often hostile neighbors

(Taylor et al., 2014).

  The best way to govern metropolitan areas is a recurring discussion among policymakers

and the academic community (Spicer, 2015). As a policy and decision-making entity, the Alberta

provincial government in 2016 introduced a new policy, under section 708.28, part 17.2 of the

"Modernized Municipal Government," stipulating the mandatory creation by each municipality of

an Inter-municipal Collaborative Framework (ICF). (Government of Alberta, n.d.). The initiative

represents a different direction and approach from the Klein government's 1995 elimination of

RPCs by emphasizing vertical cooperation between provincial-municipal levels of government,

and horizontal relationships across municipal governments. Taylor et al., (2014) suggest that inter-municipal planning is within emerging provincial-level regional planning frameworks. Although none will go on record, many people I have spoken with in the planning field saw the ICF process as a step toward reintroducing regional-scale planning, starting with service delivery.

2.4   Collaboration

The third phase of the literature review focused on the concept of collaboration. Understanding the background information and the extent of available research on collaboration is not only essential but is crucial to the task of adequately evaluating and understanding the collaborative capacity in Alberta. This section summarizes key dimensions in the literature to provide scholarly perceptions and contextual information on collaboration. The review is organized and presented under eight distinct themes to address all necessary components relevant to collaboration. The review is to identify evaluative criteria and framework on inter-municipal collaboration.

2.4.1   General Overview of Collaboration

This section discusses the existing literature and how collaboration has been explored and pursued in the past. To effectively complete research and develop a practical operational and structural framework for collaboration that can be adopted and adapted at the municipal level, it is essential to evaluate and analyze the existing sources, opinions, and ideas on collaboration in various dimensions and capacities. Therefore, within the scope of this study, the following questions are explored: i) what is collaboration about? ii) what do we do with collaboration? and iii) how can the findings be applied to ensure a positive collaborative result, both operationally and structurally, among relevant municipal agencies and municipalities. These questions are central elements to this study and are expected to provide insight into a range of factors including the deficiency of collaboration; why collaborations are different; the constituents engaged in

collaboration; and the evaluative criteria that can best assess collaborative best practices and successes.

2.4.2   Perspectives of Collaboration from Previous Research

As seen in the literature, collaboration generally means different things to different people at organizational and individual levels, given different situations. Collaboration is often shaped by the purpose of its creation or expected outcome. Guzman (2015, p. 19) suggests that irrespective of whether a collaboration is "as a result of consequence or a proactive organizational action," that there are a couple of similar components to any "successful collaborative" venture. Findings from the literature indicate considerable variation in the definition of collaboration, and in perspectives of collaboration regarding context, concept, scale, and scope. For instance, Zamanzadeh et al. (2014) examined collaboration from Iranian nurses' viewpoints in a qualitative study and discovered the meaning of collaboration with less uncertainty through perspectives of the results of the study and other studies. Kapucu et al. (2010) assessed collaboration from an emergency management and network perspective on a national scale and found that collaboration is essential among stakeholders for efficient use of resources and elimination of redundancy. Ward et al. (2018) focused on collaboration from an interagency relationship point of view. They found that history of interactions, informal arrangements, external mandate, and short-term or long-term benefits expectation from collaboration can drive more formal collaborations or serve as a catalyst to explore collaborations. The diversity of collaboration studies mentioned above underscores the idea that collaboration is both a contextually and conceptually complex construct.

There are clearly differences in the purpose, situation, and perspective of collaboration. Wood and Gray (1991) explored some of the definitional, conceptual, and theoretical understanding of collaboration. They initially assumed that a standard definition of collaboration exists. However, after examining seven definitions, they found different and sometimes confusing

definitions, some of which made sense individually, but were not satisfactory in a broader sense. These authors concluded that some definitions lacked relevant information about the actors' roles and responsibilities, the means of getting things done, and the anticipated outcome of collaboration. Despite the variance in perspective and definitions, some more universal traits were seen in the definitions. For example, "shared norms, rules or institutions" were identified across all the definitions.

With these identified similarities and perceived shortcomings in the existing definitions of collaboration Wood and Gray (1991, p.146) consequently proposed that "collaboration occurs when a group of autonomous stakeholders of a problem domain engages in an interactive process using shared rules, norms, and structures, to act or decide on issues related to that domain." This new definition tries to integrate some critical elements and ideas surrounding collaboration. These elements include such factors as actors or parties with interest in a problem area, involvement in a relationship by the parties involved, existing decision-making power or ability, shared interest or structures, the willingness to engage in a process to either act or decide on an identified problem objective, and the desire to achieve an agreed-upon outcome or expectation. Wood and Gray's (1991) definition, which identified necessary components for collaboration, is similar to the explanation offered by Thomson and Perry (2006) who exploited *"collaboration processes."*

Although all these studies focused on collaboration, it is important to note that the perceptions, criteria, and definitions differed based on the partnership's purposes and situations. This identified variation in the literature corroborates the observation by Zamanzadeh et al. (2014) that collaboration is a term that has seen different conceptual definitions several researchers. It also reflects on another viewpoint—that some researchers think collaboration should be fundamentally understood in terms of purpose and the situation surrounding the creation of collaboration, rather than "defined" a priori (Kramer & Schmalenberg, 2003). From all the

numerous studies and perspectives of collaboration in the literature, what is most intriguing and relatable to this thesis is the idea, as articulated by Swanson et al.'s (2001 study on "*cross-cultural collaboration" a*mong health professionals that collaboration is a vital element of any work relationships among many individuals. In summary, the contexts and perspectives of collaboration tend to be discipline-specific, as Bedwell et al. (2012) demonstrated. The next step is to outline the different efforts to define collaboration and the explanations for the definitions, having explored several thoughts on the perspective of collaboration.

2.4.3   Attempts to Define Collaboration and the Rationales for Collaboration

Increasingly, different circumstances are necessitating collaboration, making public agencies among decision-making sectors required to engage in collaboration. According to Sedgwick (2017), public agencies are urged to undertake interagency and cross-sector collaborations with increasing frequency. The complexity of the problems, coupled with public managers and administrators' limited resources in the past two decades, promote collaborative strategies with other agencies in order to identify and to provide solutions to problems (O'Leary et al., 2006). In a study looking at the prospective for interagency collaboration at the national scale, Kaiser (2011) identified improving efficacy in policy formulation and implementation; creating awareness among agencies on differing perspectives and orientations; reducing conflict among participants; improving agency efficiency; increasing efficiency; minimizing redundancy; and cutting cost and avoiding overlapping, among others, as possible rationales for engaging in collaboration. Like these rationales are the findings from Johnson et al., (2003) a study that revealed interagency collaborations in most situations are created due to scarcity of resources; lack of competent or trained crew; legislative preference or mandates; duplicated services; or need for additional services and ownership of shared problems.

Further justification for the importance of, and the rationales for interagency collaboration, can be seen in the work of Bruner (1991) and Imel (1992), where it is argued that collaboration is essential when faced with issues that cannot be dealt with effectively by a single agency and needs the attention of several agencies. The Inter-municipal collaboration framework in Alberta, when initially introduced in 2018, was a new legislative approach in the province that aimed to facilitate interagency collaboration for some categories of essential services. It was subsequently streamlined to be more flexible through "Bill 25" in 2019. This streamlining essentially increased flexibility by removing the specific list of services or areas to be included or addressed in the Inter-municipal Collaborative Framework (ICFs) (Government of Alberta, n.d.). In its situational scope, the provincial government's ICF initiative obligates municipalities that share a common boundary and are not included in the Growth Management Board (GMB), regional collaboration and coordinated decision-making for metropolitan regions, under the NDP (New Democratic Party) government to develop an inter-municipal collaboration framework with each other (Government of Alberta, n.d.).

The framework will address the provision, planning, delivery, and funding of "integrated and strategic" inter-municipal services. It will allocate resources adequately to provide local services and ensure that municipalities provide residents' services. This framework therefore states a preference for an integrated approach over a fragmented approach. The description of collaboration in the ICFs framework described above is very similar to those provided by other agencies and what was found across much of the reviewed literature. For instance, Bingham (2008) synthesized and summarized the description of collaboration as a means to "co-labor" to achieve common objectives when working across boundaries in relationships entailing multiple sectors and actors. In other studies, collaboration is defined as involving "a combined effort of

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assertiveness and cooperation" (Heatley & Kruske, 2011; Kilmann & Thomas, 1977), and as a kind of integration that is attained by mutual and optional arrangement (Ben-Sira & Szyf, 1992).

While assessing all these definitions, and the initiative that called for mandatory collaboration among municipalities with common boundaries except those included in a special arrangement under the GMB in the province, it is clear that collaboration can be both voluntary (and discretionary in most cases), but also compulsory (e.g., when it is mandated). Atkinson (2005) suggests that there is a preference for a more integrated approach by various organizations, sectors, and professions to achieve a better outcome on policy development and the planning and delivery of services since the advent of partnership working. In the definitions of collaboration, terms like partnerships, cooperation, coordination, integration, and teamwork have been consistent and reflective of the purpose, temporal terms, agreement, and the scope of collaborations. I find teamwork the closest concept to collaboration because of the shared element of a common goal and desire for task completion in the most effective and efficient ways. Yet it is important to reiterate that in terms of collaboration, there is still conceptual or definitional fuzziness. As (Heatley & Kruske, 2011, p. 53) succinctly stated, "currently, there are inconsistencies around the concept of collaboration in terms of definitions, characteristics and language." This inconsistency or fuzziness is part of the operational character of collaboration and is a reminder that collaboration will materialize and function differently depending on the purposes and situations that necessitate collaboration, as well as the context surrounding it. For the purpose of this study, I define collaboration as a process by which two or more individuals, organizations, or stakeholders work together through agreed upon rules of engagement and conduct, with stated expectations of a desired or defined outcome that is measurable to determine its success.

2.4.4 Context of Collaboration/Interagency Collaboration

The contextual theme of collaboration deals with the circumstances, backdrop, or contextual milieu that form the collaboration settings. Context therefore influences how the problem is situated and understood, and the arena within which collaboration must take place. Collaboration, and especially interagency collaboration, is emerging within studies of bureaucratic and environmental concerns (Thomas, 1997, 2003) and is prevalent in the social services discipline (Darlington et al., 2005; Nylén, 2007; Page, 2003; Sowa, 2009) and also within the public health sectors (Polivka, 1995; Van Eyk & Baum, 2002). Regardless of the field or discipline, collaboration is an essential tool for public agencies to make use of (Sedgwick, 2017), and, as stated by Sullivan and Skelcher (2003), is a necessity for an array of actors with "complementary perspectives, expertise and resources" to come together to address the complex scale and scope of challenges facing communities.

As previously mentioned in chapter one, other critical contexts of collaboration motivating public leaders to seek collaboration with other agencies actively are the desire for "new and innovative approaches" to service delivery, and the desire for improved outcomes (Agranoff & McGuire, 2001). Furthermore, the opportunity for fast and efficient outlets for information sharing between organizations (O'Leary et al., 2012) is another important collaboration context. Importantly, understanding the context is essential in understanding the collaboration itself and every component associated with it, including the processes and outcomes that result in meaningful collaboration.

2.4.5 Criteria for identifying and assessing a successful collaboration

This section focuses on both the process and the outcome of collaboration to identify what constitutes a successful collaboration.

(a) Processes of Collaboration

Scholars in the field of public administration have studied collaborative processes and tested collaborative processes frameworks in an effort to explain the reasons for collaboration and the mechanisms and processes through which collaboration happens (Ward et al., 2018). Yet Heikkila and Gerlak (2016) argued that minimal scholarly attention has gone into understanding how collaborative processes design elements develop or progress with time, despite the intense focus on understanding forms of collaborative processes connected to successful collaboration. After looking at the efforts dedicated to understanding collaborative processes, and fields of research and practice known for adopting collaborative efforts, it is essential to understand what a collaborative process is and how it shapes collaboration. Collaborative processes are activities and continuing relationships that give both structure and significance to mutual activity (Ring & Van de Van, 1994). According to Ansell & Gash (2008), these activities and ongoing relationships can be grouped into several categories or dimensions, such as face-to-face dialogue, trust-building, commitment to the process, shared understanding, intermediate outcomes, or "small-wins." In other studies, these dimensions were described as five distinct governance features, namely administration, organizational autonomy, mutuality, and norms of trust and reciprocity (Thomson & Perry, 2006; Thomson et al., 2007).

Sedgwick (2017) acknowledges that the five dimensions articulated by Thomson and Perry (2006) are distinctive but suggest that it is uncertain if the specified dimensions are necessarily required or even adequate for different inter-organizational collaboration levels because it still remains unclarified by scholars. However, Powell (1990) also affirms these five dimensions as important qualities that distinguish collaborating from other types of interactions peculiar to a "market- or hierarchical-based relationship." The literature also points to some disparity or disagreement on the composition of the collaborative process, but also shows that most of the models show

agreement or concordance by incorporating trust, communication, shared purpose and decision-making ability, and power as key features of the collaborative processes (Ansell & Gash 2008; Bryson et al., 2006, 2015; Emerson et al., 2012; Thomson & Perry, 2006).

Within the collaborative process, several steps are required to develop the desired design and form of collaboration. Studies show that as the collaborative structure progresses between the collaborators, so do the rules and norms engaged in the collaboration (McGuire, 2006; Wood & Gray, 1991), and that "institutional design and facilitative leadership" will impact the collaborative process (Ward et al., 2018). In addition, Sedgwick's (2017: p. 243) study revealed a result of "strong consistency and coverage" when the five distinct collaborative features are responsible considerations for robust inter-organizational activity. However, it must also be recognized that there is some degree of situation-specificity, and in certain situations, some dimensions will be more prominent than others in the collaboration process. Nevertheless, the entire suite of five collaborative dimensions is considered vital for assessing the collaboration's overall suitability or success (Sedgwick, 2016, 2017).

(b)   Outcomes of Collaboration

In the literature, collaboration outcome is mostly discussed in relation to disaster response. While reflecting on the result of collaboration and response, McGuire (2006) suggests that coordination in disaster response is intermittent. This implies that the coordination is often fragmented and requires collaboration for adequate coordination and consistency. The literature also shows a relatively recent surge of interest in assessing collaboration, and in evaluating the magnitude of joint measures to accomplish the desired results (Sullivan et al., 2002). The outcome of any collaboration, whether success or failure, is dependent and influenced by various evaluative criteria. These assessment metrics are usually considered and initiated during collaboration

formation and development, including interagency collaboration (Amirkhanyan, 2009; Ward et al., 2017).

Previous research has shown that in situations where agencies adopt different performance techniques and are answerable to different leadership, it can create challenges regarding the formation and improvement of performance techniques in interagency collaboration (Ward et al., 2018). Variations in the adjudged drivers of success within the hierarchical order of participants have also been identified as contributing to whether collaboration is successful or not (Johnson et al., 2003). Few studies seem to have measured the collaborative impacts on program outcomes. Among these, many have, without adequate empirical evidence or justification, connected the existence of collaboration to program outcomes in some instances (McGuire, 2006). This over-optimism was identified by Berry et al. (2004), who claimed that the literature on collaboration is "celebratory and rarely cautious" even though the outcome is not always positive. Empirical findings corroborate the argument that there is a common assumption about collaboration success, even when the "common practice" does not support that assumption (Huxham, 2003; Vangen & Huxham, 2003). In other words, it is a useful reminder that even though there may be an expectation that collaboration will yield a positive outcome, this is not always the case due to several hidden and apparent factors.

2.4.6   Likely Factors to Impact Success of Collaboration

This section examines those elements that can affect the results of a collaboration. In studies on traditional collaboration and interagency collaboration, Ward et al. (2018) identified antecedent factors as influencing collaborations' success. They argued that pre-existing relations and "external constraints" may encourage agencies to operate across bureaucratic boundaries. Other studies have identified some organizational attributes such as agency norms, values, leadership, and cultures, as commonly indicated essential factors propelling collaborative

decisions (Calanni et al., 2014; Huxham & Vangen, 2000). In contrast, the lack of understanding, communication, time, and unclear goals were identified as impeding factors for successful collaboration (Stegelin & Jones, 1991). Johnson et al. (2003) summarized the findings from several studies on the possible barriers to a successful collaboration and identified key variables. These are: degree of service, inconsistent definition of collaboration, opposing views on issues relating to confidentiality, the creation of a new form of bureaucracy, the problem of defining or setting decision-making rules among participating members, time constraints, continuous availability of critical people, and the reluctance toward change among members.

In terms of successful collaboration process, Ostrom (1998, 1990) identified reciprocity, trust, and reputation as three crucial factors. In agreement, Cohen (2018) also argues that the ability of parties involved in a collaboration to build on those three essential factors (reciprocity, trust, and reputation) over time will determine the outcome of the collaboration. It will also influence whether the collaboration will result in a "low-level engagement" or if it will result in a "long-term, committed, and high-engagement" form of cooperation. Despite variation in context and scope identified in the literature, I find the elements of reciprocity, trust and reputation identified by Ostrom (1998, 1990) to be common indicators, and Cohen's (2018) argument for the need to build on those three essential factors to be the most compelling, and the need for a sufficient and adequate measure of the collaboration's performance the most unanimous opinion in the literature.

2.4.7   Identified Gaps in the Literature

There is generally a robust support of and collective acknowledgment of the relevance of collaboration and its ongoing and current policy discourse in the literature. Yet there are some identified gaps and inadequacies that can be identified, especially in terms of cooperation among emergency services. There is a paucity of knowledge and hence a need for more insight into the

culture of emergency services and the management community that could yield greater

understanding of the factors that shape collaboration. Therefore, it follows that the emergency

services networks and their collaboration dynamics should be further explored. Ward et al. (2018)

described the interagency collaboration as a complicated emerging situation that requires further

study and an acceptable measure. Some of this complication stems from defining the expected

outcomes, and the exertion or assumption of leadership by a particular agency, and according to

Bardach (2001, p. 160), "minimizing transaction costs" is one measure that can decide interagency

success. Consequently, this leads us to another gap identified in the literature—namely, the

difficult problem of establishing and refining performance measures in "interagency collaboration,

where agencies employ different performance measures and are ultimately accountable to different

leadership" (Ward et al., 2018). The absence of an existing comprehensive framework to measure

and facilitate collaborative networks or structures on wildfire mitigation, response, and recovery

within the emergency services best sum up the literature's identified gaps.

Ward et al. (2018) also point to this key omission from our knowledge base and argued that

despite researchers' efforts to examine the collaborative process from different perspectives such

as "institutional," "governance," public management and even collaboration, there is no integrated

framework for interagency collaboration. Hence, there is justification for a proposed integrated

evaluative collaborative framework among local agencies and between municipalities on wildfire.

2.5   Evaluation Framework

This section discusses the evaluation tools designed for the evaluation framework and the

process of its development. The literature on wildfire indicates there is currently no specific

evaluative framework on collaboration relating to wildfire, even though several studies have

addressed various principles of evaluating collaborative design processes and outcomes.

Specifically, the work by Maurice Atkinson (2005) is relevant, compelling, and similar to the

evaluative principles drawn and adapted from the UN Good Governance principle by Graham et

al., (2003). These adapted principles are central in developing and designing a three-level

evaluative processes for this research.

The choice of the UN Good Governance principle as the main evaluative index is attributed

to some essential criteria expected of governance itself. To better understand the concept of

governance, Bryson et al. (2006, p. 49) describe governance as a "set of coordinating and

monitoring activities [which] must occur in order for collaboration to survive." These activities

include social mechanisms (Jones et al., 1997; Ostrom, 1990), cultural and political rights,

outcomes that relate to the commitments for results, and traditions. All of these activities influence

the manner of exercising power, participants' voice, and decision making (Graham et al., 2003).

Collectively, they make up the institutions and processes of collaborations that require evaluation.

The evaluation framework is discussed under three broad categories of social, economic,

and policy attributes and then organized into five dimensions. Each represents a principle from the

UN Good Governance. Each level in response to this study's stated research objectives deals with

developing evaluative dimensions, operational indicators for each aspect, and identifying a set of

evaluative criteria referred to as key performance indicators, respectively. The dimensions are the

first level and highest order of the three-level process, and they represent essential domains of

collaboration that have been identified. The second level, referred to as operational indicators,

deals with the broad category/explanation of each dimension's necessary components. It is "a

logical way of analyzing the dimension and reflective of key components of how the partnership

operates" (Atkinson, 2005, p. 4). The third level is called key performance indicators. They are

those essential features that are expected to be present in a developed collaboration to fulfil its

purpose, strengthen the design and process, and positively influence the outcome. To better

understand various good governance dimensions by different authors, Table 2.1 provides

information about how some of the principles have been grouped in the past. Table 2.2 provides

details about the three-level evaluative framework process and the research objectives, and Figure

2.1 gives a visual representation of the good governance principle designed for this study.

Table 2.1 Showing various principles and dimensions of Good Governance

Dimensions of Good Governance	Source
Openness and transparency; broad participation; rule of law (predictability); and ethics, including integrity (control of corruption)	Lautze et al. 2011
Coordinated decisions making; responsive decision making; goals and goal shift; financial sustainability; organizational design; role of law; training and capacity building; information and research; accountability and monitoring; private and public sectors roles	Hooper 2010
Governance, administration, organizational autonomy, mutuality and norms of trust and reciprocity	Thomson and Perry 2006; Thomson et al., 2007
Vision and leadership; partnership dynamics; Strategy and performance measurement; influencing; participation and; cost effectiveness	Atkinson 2005
Face-to-face dialogue, trust building, commitment to the process, shared understanding, and intermediate outcomes, or "small-wins	Ansell & Gash 2008
Legitimacy and voice; Direction; Performance; Accountability; and Fairness.	UNDP N.D. as cited in Graham et al. (2003)

 Adapted from a thesis by Montgomery (2013)

Table 2.2 Developed Evaluation Framework Key Performance Indicators

KEY DIMENSIONS	OPERATIONAL INDICATORS	Key Performance Indicators
Dimension 1: **LEGITIMACY & VOICE**	• Participation, • Consensus Orientation	• Communication, • Participation/Participatory, • Mutual Respect, • Consensus/Common Ground, • Mutual Consent, • Shared Risks & Rewards, • Mutual Aid, • Demonstration of Commitment
Dimension 2: **DIRECTION**	• Strategic visions, • Existing Policies and Norms (Historical, Cultural, and Social Complexities)	• Shared Interest, • Inspiration, • Clarity of Purpose/Mission/Vision, • Leadership, • Projected Use and Benefits of Service, • Effective & Ongoing Cooperation to Accomplish Shared Interest, • Stability, • Adaptability, • Partnership Agreement, • Duration
Dimension 3: **ACCOUNTABILITY**	• Transparency/ Trust • Communication / Flow of Information, • Dispute Resolution	• Trust, • Transparency, • Responsibility, • Accountability, • Open & Transparent Relationship, • Consistent and Shared flow of Information, • Open and Timely Disclosure of Relevant Facts/Information, • Fair and Respectful Conflict Resolution Process
Dimension 4: **PERFORMANCE**	• Responsiveness to present & future needs, • Effectiveness & Efficiency of Service Funding and Delivery (cost effectiveness)	• Responsiveness to Needs and Aspirations, • Norms of Trust and Reciprocity
Dimension 5: **FAIRNESS**	• Equity (Cost-Sharing), • Rule of Law	• Equity, • Cost-Sharing, • Objectivity, • Equitable Service Delivery

Figure 2.1 Good Governance principles and the key dimensions

2.5.1 Defining the Evaluative Criteria Components

This section provides details for understanding the measurement metrics adopted here and the assigned interpretations. These details will cover information on the structural dimensions that are the essential domains of collaboration and include the operational indicators that are broad categories of the dimensions' components. The definition is expected to help understand the key performance indicators that, as mentioned earlier, are the crucial elements necessary for any collaboration to meet its purpose, strengthen the process design, and positively influence the collaborative structure and outcome. These definitions are adapted from Graham et al., (2003) at

the Institute of Governance and the UNDP Good Governance principles. The elements of good governance adopted, as seen in Figure 2.1, are legitimacy and voice; direction; performance; accountability; and fairness (Graham et al., 2003).

(a)   Legitimacy and Voice

This refers to obligations relating to the rights and acceptance of collaboration's guiding principles. This evaluative framework dimension is explained under two broad categories, namely participation and consensus orientation. Participation means all participating partners have a voice in the decision-making process that relies on freedom of association and expression and the capacities to participate positively and meet specific duties or obligations. Consensus Orientation, on the other hand, represents the ability to arbitrate on the diverse and varying interests to reach an agreement for the benefits of the partnership.

(b)   Direction

This dimension represents the course along which the collaboration will move. It is expressed under strategic vision and existing policies and norms. It covers the description of the long-term perspective of the partnership's direction in terms of what is needed, where things should be in a precisely defined future given all historical, cultural, and social complexities.

(c)   Accountability

This dimension is discussed under two categories, which are accountability and transparency. Accountability looks at how well the participating partners are accountable to the partnership and all the established processes and procedures. Transparency relates to the communication mechanisms in place and the flow of information. Transparency explains how well the existing institutions, procedures, and processes define and promote collaboration.

(d)   Performance

Broadly categorized into responsiveness, and effectiveness and efficiency. Responsiveness looks at how well the institutions and processes support and serve all participating partners. Effectiveness and efficiency contrarily explain how well or to what extent the process and institutions in place, anticipate or produce outcomes that meet needs and, at the same time, maximizing the use of resources.

(e)   Fairness

This dimension is discussed under two major operational indicators. The first is equity, which means that all collaborating partners have equal access, opportunities, and benefits. The second one is the rule of law, which sees that the binding legal framework is just and applied unbiased, with all partners treated equally in respect of the binding agreement.

2.6   Summary

This chapter has provided a literature review and overview of all the essential elements and concepts relating to collaboration. It has established the conceptual, contextual, and other necessary frameworks specific to this study. In addition, it has outlined the interdisciplinary nature of this study, across planning, politics, governance, policy, and decision-making. This review has also reiterated the interplay between policy decisions and a host of other factors such as economic consideration, political ideology and will, among others. Finally, building upon the literature review of collaboration, and collaboration processes, dynamics, and assessment, it has proposed a multi-domain and multi-level evaluation framework to structure and guide the empirical research of this thesis. The focus of the next chapter is the research methodology for inter-municipal collaboration.

CHAPTER 3: STUDY AREA, RESEARCH DESIGN, AND METHODS

3.1   Introduction

The previous chapters documented the preliminary phases of the study in which three essential

steps were undertaken. The first step involved defining research questions and situating them in

the relevant literature, while the second step pertained to scoping out and summarizing the

literature on collaboration and good governance. These two steps can be thought of as the planning

phase of the study. The third preliminary step entailed developing the evaluation framework used

in the study. After these initial steps were carried out, the research proceeded in three sequential

phases. The first phase focused on the data-collection phase. The second phase was analytical in

nature and included the application of the evaluation framework described in Chapter 2. The third

and final phase involved developing recommendations for improving inter-municipal collaboration

by identifying substance-related gaps and structural deficiencies. The purpose of this chapter is to

outline the overall research design, the sources of data relied upon, and the methods of analysis

used.

The chapter is organized into three main sections as follows. It begins with a discussion of the

methodological approach taken, namely a document analysis, a discussion that provides a rationale

for the approach and a review of its strengths and weaknesses. That section is followed by an

overview of the research design, which describes the distinct line of inquiry reported in this study.

The third section describes the steps taken to collect the empirical data used in the study and the

analytical procedures used to interrogate those data.

3.2   Research Approach and Design

This study relied on qualitative document analysis to understand the inter-municipal

collaborative structure on wildfire handling in Alberta by evaluating two sets of documents,

namely ICF and IESA. In deciding upon the qualitative document analysis (QDA) approach, both

strengths and weaknesses identified in previous studies were examined. The QDA has been extensively popular in sociology, history, and anthropology and involves finding and examining facts or styles in already existing documents (Witkin & Altschuld, 1995).

The QDA focuses on discoveries and explanations, including the search for context, underlying meanings, patterns, and processes, instead of quantitative or numerical relationships between two variables that are highlighted in quantitative content analysis (Altheide, 1996; Berger, 2017). The process is also described as more interested in thematic emphasis and trends in communication patterns and discourse than in only frequencies and statistically derived relationships (Krippendorff, 2004). In this approach, it is believed that the selected documents will generate data to adequately evaluate and understand the strength of the collaborative practices among the municipalities generally and in relation to wildfire. Identified benefits of this method are minimal time and cost required because the process does not involve collecting new data, and access to documents is the major limitation (Pershing, 2002) relevant to this study.

The ICFs represent the current policy initiative on inter-municipal collaboration in the province, while IESAs represent the historical perspectives and the extent of inter-municipal collaboration before the ICF initiative by municipalities. The decision to analyze the IESAs in addition to the ICFs was driven by one of Bowen's (2009, p29) arguments on the uses of documents in research—namely that documents may serve as "witness to past events, documents provide background information as well as historical insight." It is expected that information gathered from this document (IESA) will help understand the historical aspect of inter-municipal collaborative practices and bridge the information gap from the data from the analyzed ICFs since the former is an operational document, and the latter is a policy framework document.

3.2.1 Data Sources

As mentioned earlier, this study relied upon two sets of documents (see Table 3.1), namely

a set of 26 Inter-municipal Collaborative Frameworks (ICFs) and 15 Inter-municipal Emergency

Services Agreements (IESAs) detailed in the following sub-sections.

Table 3.1 Data Sources

Data Source	Details
Inter-municipal Collaboration Frameworks (ICFs)	• 26 ICFs involving 28 municipalities were identified as of November 2019 for inclusion in this study. • 11 ICFs were negotiated between a county/municipal district and another county/municipal district. In Table 4.2, these are labeled "Lateral ICFs" (L-ICFS). • 15 ICFs were negotiated between a county/municipal district and a lower-tier municipality. In Table 4.2, these are labeled "Vertical ICFs" (V-ICFS).
Inter-municipal Emergency Services Agreements (IESAs)	• A total of 15 IESAs involving 24 municipalities were analyzed out of the IESAs referenced in the study ICFs. • Table 4.11 provides additional details.

3.2.2 Key Document Collection and Analysis

The key documents used in this study comprised a set of ICFs that were publicly available

as of November 2019 and a collection of Inter-Municipal Emergency Service Agreements (IESAs)

referenced in the available ICFs. As there are nearly 350 municipalities in Alberta, dealing with a

complete inventory of ICFs was deemed impractical. Thus, the initial plan was to build a sample

frame of all completed ICFs and then select a random sample of agreements from the frame,

stratified by municipality size and geographic location so as to achieve a broadly representative

sample. This would have allowed for findings to be generalized with a reasonable confidence

level. However, requests to the Ministry of Municipal Affairs for a list of completed ICFs were

denied, and in any case, this phase of the research was undertaken some sixteen months prior to

the April 1ˢᵗ, 2021, deadline for completing ICFs so most municipalities were in the negotiation phase. Consequently, the decision was taken to conduct a web-based search using the search engine Google. That search, which commenced in the late summer of 2019 and continued into the fall, yielded 26 ICFs.

A scan of the 26 study ICFs led to discovering a more detailed and targeted type of inter-municipal collaborative agreement called Inter-municipal Emergency Service Agreements or IESAs. IESAs are agreements signed between two or more municipalities in regard to emergency services and are enabled under Part 1 of the Alberta Municipal Government Act (Purposes, Powers and Capacities of Municipalities). Although 42 IESAs were listed in the 26 study ICFs, the researcher was not able to access the documents because of lockdown due to COVID-19 pandemic and as such only 15 were collected and analyzed. These agreements, the details of which are provided in the following chapter, comprise the second set of key documents used in this study.

After collecting these documents, the analysis employed a detailed content analysis process that involves "organizing information into categories" (Bowen, 2009, p.32) or themes related to the research's central questions. The analysis of both the ICFs and the IESAs was conducted in light of the developed evaluation framework. The contents of each document were evaluated against selected indicators under the five structural dimensions namely (a) legitimacy and voice (b) direction, (c) accountability, (d) performance, and (e) fairness chosen from the good governance principles with the aim of assessing the process, design elements, robustness, completeness, or selectiveness in addressing the collaborative endeavors involving different wildfire phases.

Each document was examined for the presence of 11 pre-determined operational indicators through some evaluative criteria referred to as key performance indicators (see Table 2.2 and Figure 2.1 for details). The first step was to identify the operational indicators by looking for the

presence and frequency of certain words in the documents. A second step involved grouping the operational indicators of the document's contents into higher order or more generalized categories or themes. Finally, the categorization process adopted three major categories relating to context, procedure and substance for the presentation of the findings. The content was further analyzed in terms of the presence or absence of specific operational indicators within the evaluative metrics of every ICF—and coded into numeric binary values for each ICF (0=Absence, 1=Presence). Finally, this data was analyzed by simple frequency counts and descriptive statistics in order to evaluate or describe these documents' strengths in terms of the purpose, elements of process, design, and expected outcomes of the developed collaborations.

3.3   Conclusion

This study aims to assess the collaborative practices between municipalities using the evaluation framework outlined in the previous chapter and discuss the results of this assessment for the management of wildfire across three dimensions: mitigation, emergency response, and post-event community mental health and recovery. This chapter has summarized the research design, the data collection and analysis processes. In combination, the two key sets of documents provide contextual understanding to the research questions in this study. The next chapter presents the key documents' thematic analysis results of the content analysis.

CHAPTER 4: RESULTS

4.1   Introduction

The purpose of the previous chapter was to describe the research design and methods used

in this study. This chapter, reports on the empirical findings yielded by their application. The chapter

focusses on the interrogation of the two sets of key documents, namely 26 Inter-municipal

Collaborative Frameworks (ICFs) and 15 Inter-municipal Emergency Services Agreements (IESAs)

referenced in those ICFs. The discussion of the implications of the findings outlined here, and the

conclusions drawn from the findings, are the subject of Chapter 5.

This chapter is organized as follows. First, for each document set, an overview is presented

to provide background and context, and to outline the main features of the documents. That

discussion is followed by a more detailed discussion structured on a set of pre-defined themes

developed by the researcher for the ICFs, while the discussion focusing on the IESAs is framed

with reference to the two central research questions examined in this study. For the ICFs, the

themes have been organized into three groups. The first group provides additional context, the

second group of themes deal with procedural considerations, and the third group focuses on

substantive matters relating to emergency services generally and to wildfire in particular. It should

also be pointed out that rather than devote a separate sub-section to the application of the

evaluation framework outlined in Chapter two elements of the framework have been woven into

the thematic analysis.

4.2   Inter-municipal Collaborative Frameworks (ICFs)

4.2.1   Overview of the Study ICFs

At the outset of this research, there was a statutory requirement for municipalities to file

completed ICFs with the Alberta Ministry of Municipal Affairs, and so it was hoped that a set of

completed ICF agreement could be obtained from that Ministry. Unfortunately, efforts in that

regard failed to produce the desired result. This was likely because the mandatory filing requirement, as opposed to current stipulation which simply requires municipalities to notify the province when an agreement is adopted, was under review. Consequently, a search of individual municipal websites was conducted in an effort to develop an inventory of completed agreements. Table 4.1 lists the 26 ICFs identified through that process and subsequently used in this study.

The agreements are designated numerically (1 to 26) in the chronological order in which they were identified. Each entry lists the municipalities that are party to that agreement and classifies each agreement into one of two groups. One group comprises ICFs negotiated between municipal districts/counties and other municipal districts/counties, while the second group contains ICFs negotiated between municipal districts/counties and towns or villages. For naming purposes, we can call the first group (N=11) "Lateral ICFs" (L-ICFs) and the second group (N=15) "Vertical ICFs" (V-ICFs). This categorization aims to reveal the different types of possible relationships and power dynamics among these municipalities based on their types, size, and administrative capacities. The categorization reveals similar characteristics among the L-ICF type and variations in size, administrative capacities, population, service needs, and service delivery capacities among the V-ICF type. It is essential to understand that these similarities and differences directly relate to the assumed roles and responsibilities and how the collaborating partners perceive the relevance of the collaboration.

In accordance with the provincial directives in place at the time the study ICFs were developed, all the agreements included in this study reference five mandated service areas, namely transportation, water and wastewater, solid waste, recreation, and emergency services—the latter being the service area that is relevant to this study. The provincial scheme also contained provisions allowing municipalities to exercise choice relative to inclusion of additional service areas. The range of other services referenced in the ICFs included affordable housing, seniors

housing, municipal administration, agricultural services, animal control, assessment services, bylaw enforcement, information technology, telecommunications, pest control, police services, purchasing/procurement services, weed control or inspection, family and community services, fire suppression, library services, cemetery services, administrative services, senior drop-in centre, airport services, human resources services, tourism development, and community adult learning services. Finally, amendments to the Municipal Government Act following introduction of the ICF process, contained provisions that required framework agreements to reference several other matters such as implementation details and disputes resolving mechanisms.

As shown in Table 4.2 most of the ICF agreements identified areas of service beyond the five required core service areas for collaboration, suggesting that most municipalities see the potential benefits of collaborative practices and are even willing to engage in other discretionary areas. However, a more detailed examination of the ICFs found that most of the discretionary services were only included as a check list or independently provided by each municipality except a few areas such as Family and Community Services in one ICF.

Several other observations can be made regarding the study ICFs. First, the documents are not lengthy, ranging from seven to 29 pages with an average length of 10 pages. Second, all the study ICFs are quite general in scope, in that services areas and other matters are listed but few other details are provided. This is not especially surprising since the agreements, as their title indicates, are framework documents; they are not meant to provide operational details. Third, all the study ICFs were developed by municipalities under the initial provisions set out by the previous NDP government. Those provisions specified the inclusion of particular service areas but also allowed municipalities to identify additional service areas if they wished to do so. A standard ICF should provide information and description of the parties involved, define the terms of the agreement, list the services covered, specify term and review information, indemnity, dispute

resolution measures, correspondence, cost-sharing agreement, and bylaw number. For illustrative

purposes, the ICF negotiated by Red Deer County and Town of Sylvan Lake is provided in

Appendix A.

Table 4.1: Inter-municipal Collaborative Agreements (ICFs) used in this Study

ID#	Name of Municipality	Collaborating Municipality	Category Type	
			L-ICF	V-ICF
1	Town of Bashaw	Camrose County		X
2	Town of Bentley	Lacombe County		X
3	Town of Bowden	Red Deer County		X
4	Town of Castor	County of Paintearth		X
5	Town of Coronation	County of Paintearth		X
6	Town of Sylvan Lake	Red Deer County		X
7	Town of Provost	Municipal District of Provost		X
8	Brazeau County	County of Wetaskiwin	X	
9	Camrose County	County of Wetaskiwin	X	
10	Clearwater County	County of Wetaskiwin	X	
11	Leduc County	Camrose County	X	
12	Mountain View County	Municipal District of Bighorn	X	
13	County of Paintearth	Municipal District of Provost	X	
14	Ponoka County	County of Wetaskiwin	X	
15	Red Deer County	Clearwater County	X	
16	County of Wetaskiwin	Leduc County	X	
17	Yellowhead County	Brazeau County	X	
18	Municipal District of Provost	Villages of Amisk, Czar, & Hughenden		X
19	Village of Alix	Lacombe County		X
20	Village of Bawlf	Camrose County		X
21	Village of Bittern Lake	Camrose County		X
22	Village of Edberg	Camrose County		X
23	Village of Hay Lakes	Camrose County		X
24	Village of Rosalind	Camrose County		X
25	Clearwater County	Brazeau County	X	
26	Village of Brenton	Brazeau County		X

Key:
L-ICFs: ICFs negotiated amongst counties and/or municipal districts
V-ICFs: ICFs negotiated between counties or municipal districts and towns or villages

Table 4.2 Discretionary Elements Contained in the ICFs

Discretionary Elements	L-ICFs		V-ICFs		Total
	#	%	#	%	
Other Service Areas	10	90.0%	14	93%	24
Other Elements Implementation Timeframe (Review Terms)	11	100%	15	100%	26
Dispute Resolution Process	11	100%	15	100%	26
Provisions for Developing Additional Infrastructure	11	100%	15	100%	26

4.2.2 Thematic Analyses of the Study ICFs

To interrogate the study ICFs generally, and more specifically with reference to the two objectives of this thesis—i.e., to evaluate the existing inter-municipal collaborative capacity relative to managing the wildfire hazard, and to assess it relative to the Principle of Good Governance—a thematic analysis of the study ICFs was conducted. That analysis is reported below and is framed by eight themes organized into three groups (see Table 4.3). The first group of themes are contextual in nature, situating the study ICFs in relation to previous collaborative activities or existing agreements between municipalities. The second grouping contains themes that are process oriented. Here, considerations such as dispute resolution processes or communication and information sharing come into focus. Finally, the third group of themes deals with substantive matters relating to emergency services, and wildfire in particular.

There were several considerations in developing the thematic framework. Some of the themes were derived from the contents of the ICFs, some were selected based on the research questions and objectives, and others influenced by the evaluation framework detailed in Chapter 2. For instance, the theme for process design elements covers the specific elements in the collaborative agreement that can impact or shape the collaboration. They are summarized as the performance indicators, which is the third level in the evaluation framework designed for this study in Chapter 2. Table 2.2 column 3 provides a list of the identified performance indicators

referred to as the "process design elements" in this chapter.

Table 4.3 Themes Used for the Analysis of the Study ICFs

Contextual	Procedural	Substantive
1- History of Inter-municipal Collaboration on Emergency Services	4- Dispute Resolution	8- Provision for Emergency Services in ICFs
2- Stated Reasons for Collaboration	5- Elements of Sound Process Design in the Study ICFs	
3- Reflections on the Strength of the Policy Agreement Wording	6- Assessment of the ICFs Relative to the Principles of Good Governance	
	7- Information Sharing & Communication	

(a)   Thematic Group I: Context

History of Inter-municipal Collaboration on Emergency Services: The recently introduced ICF

process is not the first initiative of its kind in Alberta relative to collaboration and/or cooperation

between municipalities. For instance, prior to the introduction of the ICF process, statutory

provisions were included in the Municipal Government Act enabling several different forms of

inter-municipal collaboration and/or cooperation. Inter-municipal Development Plans, or IDPs, are

one example as are Inter-municipal Emergency Services Agreements, which are referred to in this

thesis as IESAs. An analysis of existing IDPs is beyond the scope of this thesis, primarily because

they deal with development planning and not service provision. Details relative to the IESAs

referenced in the 26 study ICFs are the subject of Section 4.3.

*Stated Reasons for Collaboration***:** In developing its communications surrounding the ICF process,

the provincial government identified three purposes of an ICF. Those stated purposes are: (1) To

provide for integrated and strategic planning, delivery, and funding of inter-municipal services; (2)

To steward scarce resources efficiently in providing local services; and (3) To ensure that

municipalities contribute funding to services that benefit their residents (Alberta Municipal

Affairs, n.d.). In effect, the first purpose is aimed at eliminating duplication, the second relates to

economies of scale and generating the greatest benefit from services provided by municipalities at

the lowest cost, and the third stated purpose is about fairness in that the residents of one

municipality who use services situated in another municipality should contribute to the funding of

those services.

The point of this theme is to scrutinize the reasons stated in each of the study ICFs for

developing the agreements and to identify any reasons offered in addition to those stated by the

province. The logic here is that agreements that contain reasons beyond those identified by the

province suggest a stronger level of commitment to collaboration by the municipalities that are

party to the agreement. Conversely, agreements that simply restate the reasons given by the

province might be interpreted as the participating municipalities simply "jumping through the

hoops" relative to inter-municipal collaboration. However, as seen from information gathered from

both the on-line survey and the key informants initially designed to be part of this study, suggests

to this researcher that many municipalities were not opposed to collaboration, as such, but rather to

provincially mandated collaboration. This is consistent with what commentators such as Aritha

Van Herk (2001) have said relative to Alberta's political culture which, amongst other things,

emphasizes self-reliance and individualism, and in the context of this discussion, local autonomy.

The analysis of the study ICFs relative to this theme is summarized in Table 4.4, and as

shown in the table, a total of 23 separate reasons for engaging in the ICF process were identified.

These reasons have been grouped relative to the operational indicators of principles of good

governance described in the previous chapter. Out of these 23 factors, each ICF specified multiple

reasons ranging between two and seven. At the top of the list and consistent with the ICF

initiatives' goals were service funding, delivery, availability, and efficient use of scarce resources

in providing services; common border; and common interests, and shared vision respectively.

Collectively, all cases reported that how services are funded and delivered was one of the reasons or purposes for establishing collaborations. Specifically, almost three-quarters (73%) specified service funding and delivery, almost 8% each focused on either funding or delivery, while about 4% specified service availability, and about 8% identified efficient use of scarce resources in service provision as reasons for designing the ICFs. About 85% of the documents analyzed were specific about the common border, and 73% stated common interests and shared vision as one of the purposes.

Table 4.4 shows the reasons identified as to why different ICFs were developed. The table also categorizes each reason into the most applicable key dimensional structure and specific operational indicators to assess the extent of conformity to the UN's conceptualization of good governance. As observed in the ICFs, DM2-direction and DM4- performance[1] had the highest frequency and considerations for establishing most collaborations. In summary, direction and performance are the two main dimensions inspiring the identified reasons in the ICFs for establishing Collaborations. In addition to the three purposes for establishing an ICF specified by the provincial government, municipalities collaborate for other benefits, which further underscore the commitment to the initiative and benefits. This implies an indication for strong commitments to collaboration.

Table 4.4 Reasons Listed in the ICFs for Engaging in Collaboration

KEY DIMENSIONS	SPECIFIC OPERATIONAL INDICATORS APPLICABLE	Reasons for Establishing Collaboration Identified in the ICFs	Grouping of the 23 Reasons for Establishing Collaboration Identified in the ICFs into Conformed Key Dimensions
Dimension 1: LEGITIMACY & VOICE	Participation;	Shared Common Border;	1+2=3
	Consensus Orientation	Shared Interests; and Shared Vision	
Dimension 2: DIRECTION	Strategic Visions	Strategic Direction and Cooperation; Integrated and Strategic Planning; Long-term Strategic Growth; and Growth Management.	4+6= 10
	Existing Policies and Norms, Historical, Cultural, and Social Complexities	Desire to Work Together for Service Provisions; Cooperation Instead of Competition; Commitment to Cooperate; Commitment to Same Level of Service Provision; Positive, Enduring & Effective Relationship; Effective & Ongoing Cooperation.	
Dimension 3: ACCOUNTABILITY	Transparency, Trust, Flow of Information	Open & Robust Communication & Cooperation	1
Dimension 4: PERFORMANCE	Effectiveness & Efficiency of Service Funding and Delivery (cost effectiveness)	Service Delivery; Service Funding; Service Availability; Service Funding & Delivery; and Steward Scarce Resources Efficiently in Providing Service.	5+4= 9
	Responsiveness to present & future needs	Provide Quality of Life; Community Enhancement; Projected Use & Benefit; Formalize, Streamline & Help Advance Areas of Inter-municipal Interest & Relevance.	

Numbers in the table represents the identified reasons for establishing the ICFs

[1] DM denotes Key Dimension

Reflections on the Strength of Wording in the Study ICFs: An ICF, just like any other binding agreement, requires a harmonized understanding of how the content works, and the nature of the words used in such a document can be used by analysts to assess the level of commitment to collaboration. The purpose of this theme, therefore, is to understand how the policy wording reflects the measures to ensure commitment or compliance to the terms of agreement by the collaborating parties. Including this theme speaks to the importance of the legitimacy and voice principle from the evaluation framework as it provides clarity on such considerations as rights, acceptance, duties, and obligations. The choice and strength of the policy agreement wording is more like the heart and soul of the collaboration and is essential to the interpretation and sustenance of the relationship. Additionally, the binding language says a lot about the level of

commitment by the parties to the agreement to collaborate with one another.

Word choices like "may", "shall", and "must" appear in the ICFs in different sections. Analysis of the ICFs revealed that these wording choices are measures to ensure clarity of purpose and understanding of roles and obligations specified in the ICFs. In addition, the choice or selection of policy words may, shall or must, is expected to affect the attitude or behavior of the participating partners in the area of compliance and commitment to the purpose and vision of the agreements.

Inclusion of terms such as "shall", "must" or "will" in a formal document, such as an ICF or IESA, is directive and obligatory. Whatever the matter in question, the relevant parties have no choice but to comply with what is being directed. Alternatively, the verb "may" is used when the intent of the parties to an agreement reflect/indicate flexibility relative to a course of action. The pattern observed with the policy wording is that the choice word "may" is used to encourage or provide flexibility. This "may" mostly appears in the section about how to name or reference the agreement. The word "shall" appear where and when enactment, legal process, exertion of authority, defining dates for the commencement and cancellation of the agreement, and terms and review are discussed. The word "must" also appear in sections implying authority, obligation or enforcing an obligation. Examples of these wordings and the context for usages of these terms in the ICFs are provided in Table 4.5.

Based on the above reflection, the strength of wording in the study ICFs combined the non-discretional, flexible and in some instances aspirational terms. Further analysis indicated that mostly, the ICFs contain more directional or non-discretional terms where obligations are spelled on concrete ways. Finally, the term "will' is used in suggesting whether services will be provided jointly or independently across service areas.

Table 4.5 Typical Usage of the Wording

Types of Language	Words Used	Comments: Typically used when
Obligatory /Non-Discretionary	Shall	- Defining term and review commencement - Suggesting when an agreement is not meeting or serving its purpose and a replacement is required - Defining precedence and relationships to agreements - Specifying elections terms - Defining responsibility in relation to asset management - Recommending dispute resolution process - Defining indemnity
	Must	- Proposing meeting recommendations for committee - Providing specific guidelines on capital projects
	Will	- Suggesting initiating a new service or project or an approach for something that will happen in the future e.g., capital planning and cost sharing -Relating to recommendation for how things should happen after consensus - Suggesting direction for future activity. E.g., Suggestion that mutual aid agreements and/or cost-sharing agreements will be addressed and developed by the ICF committee. - Deciding whether services will be provided jointly or independently - Suggesting criteria to be used when assessing the funding desirability of new projects -Relating to compliance with agreed solution or arbitration order
Discretionary	May	- Suggesting amendment to the agreement - discussing options or formats of delivering recommendations - Proposing or recommending an approach for something that may happen in the future
Aspirational	Desirous	-The desires to work together to provide shared services in addition to sharing a border
	Committed/Commitment	-Committed to the same operable level of service provision and advantages -Commitment to act reasonably, in good faith, and put the best efforts to find common ground and reach consensus.

The interrogation of the ICFs' policy wording patterns relative to the lateral and vertical

categorizations of the ICFs revealed no specific pattern. However, analyzing this theme and

identifying specific terms and wordings used and how they are used provides insight into what

makes the agreements important, legal, and different from other forms of collaborative endeavors.

Identifying and analyzing these terms and understanding the usage and strength reveal measures

spelt out in the agreements to ensure understanding, enforce compliance where necessary, and

implement the agreements' contents, which invariably can influence the effectiveness of the

collaborations. All these are essential to achieving one of the primary research objectives of

adequately evaluating and understanding the collaborative capacity in the province as outlined in

the research objectives in Chapter 1 and the literature review in Chapter 2. This analysis and

findings further speak to the commitment to having a sound collaborative arrangement by the

municipalities.

(b)   Thematic Group II: Procedural Matters

Dispute Resolution: The provision for a binding dispute resolution mechanism to resolve

disagreements regarding an ICF is one of the components that an ICF must include, as specified in

section 708.45 of the 2015-17 MGA. Subsection two (s.708.45 (2)) expands on provision further

specifying that "where a framework does not identify a binding dispute resolution process, the

model provisions identified in the regulation apply." (Government of Alberta, 2017). Twenty of

the 26 study ICFs contained a detailed, step-by-step dispute resolution process (DRP), all broadly

consistent with the DPR outlined in the MGA Regulations, while the remaining six study ICFs

stated that disputes would be addressed according to the model contained in the MGA

Regulations.

The DRP outlined in the MGA's Regulations conforms to standard practice for resolving

differences between parties to a contract or other agreement and begins with one of the parties

notifying the other of a concern (see, Table 4.6). If the matter is not resolved following the

notification stage, the parties will proceed to an informal negotiation phase, a step that may or may

not involve an independent third party. If the matter is still not resolved at the informal

negotiation stage, the parties have the option of proceeding to formal mediation. This step will

involve the intervention of an independent, accredited mediator, whose goal is to seek a consensus

agreement that in many cases will be a compromise solution. If the matter is still unresolved, then

one or both parties can request the dispute proceed to arbitration. Managed by an accredited

arbitrator, the aim here is not to seek a consensus around a compromise position, but to hear

arguments from both parties before rendering a final decision. The arbitrator's decision is the final

word on the matter and once signed by the Minister of Municipal Affairs must be formalized by

both municipalities by way of a bylaw. An arbitrator's decision is subject to appeal to the Court,

but only on a matter of law (MGA 2016).

Generally, the inclusion of a dispute resolution mechanism is a pre-emptive/ proactive

attempt to ensure a well-defined process to resolve issues that may arise during negotiations and in

the future while collaborating. A noteworthy finding from the analysis is that all 26 study ICFs are

in compliance with the province's requirement to contain or reference a DRP. This speaks to the

fact that the rule of law is respected. Another important observation is that so many of the study

ICFs (20 out of the 26 ICFs, representing almost 77%) included detailed, step-by-step DRPs. This

suggests that municipalities regard this as an important component of success in inter-municipal

collaborations. Table 4.6 outlines a typical dispute resolution process steps developed from the

specified procedures in the MGA DRP recommendations for ICFs and the DRP details included in

the ICFs.

Table 4.6 A Typical Dispute Resolution Process

Steps	Actions
Step 1: Notification	Upon notice of issue or breach of agreement, the issue is brought to the attention of the CAO of the municipality. The CAO investigates the issue. Upon establishing that there is a breach within 14 or 30 days (depending on what is specified in the agreement) a dispute notice is issued, and the CAO of the other municipality is informed through a written notice. After both parties are aware of the issue.
Step 2: Negotiation	Within 14 days of issuing the dispute notice, the involved parties will appoint representative for negotiation. Steps are taken to resolve the matter directly between the parties using informal method of problem solving through discussions between the CAOs or appropriate established committees or representatives. If not resolved within 60 days or as specified in the agreement, then the negotiation is assumed to have failed. The next order of step is explored.
Step 3: Mediation	Within 30 days (or as specified) of mediation notice a mediator is expected to be appointed by the representatives to resolve the issue the parties must provide an outline i.e., the subject matter(s) of the dispute, give access to necessary document and information, meet with the mediator, and share the cost equally except if agreed otherwise. If a resolution is reached, then a report is submitted to each of the council by the mediator. If a mediator cannot be appointed within 30 days or mediation is not completed within 60 days or dispute is not resolved within 90 days from when receipt pf mediation notice was issued then the mediation process is assumed to have failed. Then the next step is explored.
Step 4: Arbitration	An arbitrator must be appointed within 14 days a single arbitrator is appointed upon agreement. If there is disagreement on the choice of an arbitrator, then each party will submit list of three candidates and a mutually agreed upon arbitrator from the list is selected if possible, or the party invoking the dispute submits a request to the Minister for the appointment of an arbitrator (s.708.35(2)). A preliminary meeting by the arbitrator within 21 days of appointment. If dispute not resolved within a year, the Minister can grant an extension or replace the arbitrator. Dispute resolution ends with an arbitration order.
Step 5: Arbitration Order	An arbitration order is a written document to both parties and the Minister, signed, dated, and other information about the stated reasons for resolution, implementation timeline, and details about the payment for the incurred expenses during the arbitration process. (Regulation s.20). Parties must amend their bylaws to reflect the ruling of the arbitrator (s.708.4)

*The Elements of Sound Process Design in the Study ICFs***:** In its simplest terms, a process design can be thought of as a set of actions or a way to achieve a defined or desired outcome as effectively and efficiently as possible (Aaron, 1999). From an operations management perspective, a process design details how an organization deploys its resources in a sequence of interconnected steps or phases to produce some sort of output. It is used in many different fields ranging from chemical engineering to retail planning (see, for example, Hill et al., 2002). As the aim of the ICF

program is not to produce operational documents, there is not a deliberate arrangement of discreet steps listed in those documents upon which to focus. Rather, the aim here is to focus attention on a set of key elements that are in this research—the performance indicators contained in the evaluation framework developed for this study. As discussed in Chapter 2, these elements are crucial to the success of any collaboration and, therefore, are necessary conditions for successful inter-municipal collaborations.

For this theme, the summary of the contents of the ICFs that focuses on specific design elements and sequence of actions or steps necessary to ensure a good and possibly enduring collaboration is examined and presented. The process design elements are great determinants as to whether a collaboration succeeds or fails. Across the literature (see for example, Ward et al., 2018 and Ansell & Gash 2008), several key elements have been identified as necessary factors driving successful collaborative outcomes. Focusing on these elements in the ICFs is vital to evaluating and understanding the strength of the collaborative practices in the province.

The process design elements were derived from the ICFs and are some of the performance indicators in the evaluation framework developed using information gathered from the literature (see the section 2.4.5 and 2.4.5.1). Results of this analysis are summarized in Table 4.7. The first observation to be made is that for this specific design elements, only two of the five Structural Dimensions contained in the evaluation framework detailed in Chapter 2, namely Accountability and Legitimacy, and Voice, were found in the study ICFs. Further, nearly two-thirds of the study ICFs contained language signaling a commitment to accountability, while just over one-third of the study ICFs contained language around legitimacy and voice (about 64% and 36% respectively). Therefore, being accountable to the partnership obligations and all the established processes and procedures is highly important. Additionally, having a voice in the decision-making process and ensuring a unified interest for partnership benefits is equally high in the identified

process design elements specified in the ICFs. Given that all elements of the principles of good governance are essential in collaborations, the absence of the other dimensions (*viz*, Direction, Performance, and Fairness) in this context of this theme is also an indication of what the priorities and expectations are and the likely collaborative result as the process is consequential to the outcome.

As essential as these elements are, it is observed that in just over half of the study ICFs (53%), no identifiable specific process design elements listed in the performance indicators were specified. This suggests that many municipalities did not consciously and deliberately design their respective ICFs to incorporate elements that would ensure a better outcome, at least from the perspective of this analysis. Second, it could also be interpreted as a lack of commitment to extra elements asides from the mandatory features recommended for the ICFs. That said, there are two possible explanations for these observations. First, it could be that municipal officials were unaware of these principals, or second, it might suggest they were not fully committed to the ICF exercise, perhaps because it was provincially mandated. In the remaining 46% with recognizable process design elements and after further observation, a total of 14 different actions, factors, or elements represented in the second column (see Table 4.7) were identified as necessary features required for the collaborative process design in these ICFs.

It is also worth mentioning that ICFs with these specified process design elements incorporate between one and five elements. At the top of the list of the specific design elements in the ICFs is equity with about 25%, where about 19% specified equity only, and almost 4% focused on other additional aspects. Trust and mutual respect were equally identified with 11% each as next in frequency to equity. Another essential factor across the ICFs is that most of the municipalities indicated that the collaborations would be reviewed after four or five years to improve the collaborations. Hopefully, in the future, more municipalities will incorporate more

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process design elements in the review and revised ICFs.

Table 4.7 List of the Elements of Sound Process Design in the Study ICFs

ID#	Key Dimensional Structure (KDS	Process Design Elements Identified in ICFs & Collaboration	Percentage of ICFs Containing KDS
1	DM3: Accountability	Equity	64.3 %
2		Trust	
3		Consistent and Shared Flow of Information	
4		Open and Timely Disclosure of Relevant Information	
5		Open and Transparent Relationship	
6		Effective and Ongoing Cooperation	
7		Demonstration of Commitment, Cooperation, Collaboration and Coordination to Accomplish Shared Interests, Shared Risks and Rewards	
8		Fair and Respectful Process to Resolve Differences	
9		Review and Evaluation Process	
10	DM1: Legitimacy & Voice	Communication	35.7%
11		Mutual Respect	
12		Common Grounds	
13		Consensus	
14		Consent	

 *Assessment of the ICFs Relative to the Principles of Good Governance***:** The inclusion of this

theme is essential to achieving the second core objective of this study, which is to evaluate the

ICFs using the developed evaluation framework. And consequently, use the outcome of the

evaluation to recommend areas for improvement on collaborative practices especially with respect

to managing the wildfire risk in the province. The KPIs (Key Performance Indicator) are

measurable values designed to assess the extent to which the ICFs conform to the Principles of

Good Governance. The KPIs can be used to interrogate individual ICFs, but we can also conduct

comparisons across municipalities and in relation to the two different types of ICFs.

Table 4.8 shows details of how the study ICFs conformed to the Principles of Good Governance based on the Operational Indicators (OIs). The OIs are the second level of the three-level evaluative framework outlined earlier in this thesis. The letter "x" in a given cell indicates the presence of at least one of the KPIs associated with that particular OI in the ICF under consideration. The values in the bottom row represent the number of each OI found in the study ICFs, expressed as a percentage of the total possible, while the values in the table's far right-hand column, are the number of OIs found in each study ICF, again expressed as a percentage of the total number of OIs. The latter values, referred to as the overall PGG Score, is a measure of the degree to which a given ICF conforms to the Principals of Good Governance.

The average of values in the bottom row of Table 4.8 is 89.2% and range from 23.1 to 100%, while the average of the PGG scores, presented in the far-right column of the table, is 89.5% and range from 81.8 to 100%. It is also noted that every one of the eleven level-2 Operational Indicators are present in study ICFs. Ten of the OIs were found in at least three-quarters of the ICFs, and of that number, six OIs were present in the complete set of study ICFs. The final OI, Trust and Transparency, which is a component of Dimension 4 (Accountability), was found in just under a quarter of the study ICFs. Collectively the study ICFs conformed well to the OIs of the PGG except in one aspect with less than 25% score. This implies that overall, the ICFs consist of necessary elements that can positively improve the performance and outcome of the collaborations and also promote a sustainable collaborative relationship.

To explore potential differences in the PGG scores across the two different types of ICFs – namely V-ICFs and L-ICFs – the study ICFs were split into those groups and a set of descriptive statistics were calculated for each (see, Table 4.9). For reference purposes the same set of descriptive statistics were also calculated for the entire set of study ICFs. Those data are shown in the second column of Table 4.9. The values calculated for each ICF are remarkably similar

suggesting there is virtually no differentiation between the two types of ICF relative to the adherence to the Principles of Good Governance.

Overall, the ICFs conform well to the PGG's operational indicators. All but one of the OIs were found in at least three-quarters of the study ICFs, six of the eleven OIs were present universally, and the PGG scores across the ICFs were equally high; not one of the ICFs scored lower than 80%. These findings suggest that the municipalities that are party to the study ICFs have produced policy documents that are likely to provide for effective and sustainable inter-municipal collaborations. It also means that municipalities are not just complying with, meeting, or checking the ICF requirements, but seem to be well aware of possible benefits in engaging in collaboration and are committed to designing a collaborative instrument capable of yielding positive outcomes. That said, the low score for OI "Transparency and Trust" should be noted and given the potential for a lack of transparency and trust to fuel disputes this is an area to which municipalities would well be advised to pay attention.

TABLE 4.8 Assessment of the Study ICFs' Relative to the Operational Indicators of Good Governance

ID#	Collaborating Municipalities	Dimension 1 Legitimacy & Voice		Dimensions 2 Direction		Dimension 3 Accountability			Dimension 4 Performance		Dimension 5 Fairness		PGG SCORE (%)
		Participation	Consensus Orientation	Strategic Visions	Existing Policies & Norms	Transparency/ Trust	Information Sharing & Communication	Dispute Resolution	Responsiveness	Effectiveness & Efficiency	Equity	Rule of Law	
1	Town of Bashaw & Camrose County	x	x	x			x	x	x	x	x	x	81.8
2	Town of Bentley & Lacombe County	x	x	x		x	x	x	x	x	x	x	90.9
3	Town of Bowden & Red Deer County	x	x	x	x	x	x	x	x	x	x	x	100
4	Town of Castor & County of Paintearth	x	x	x	x	x	x	x	x	x	x	x	100
5	Town of Coronation & County of Paintearth	x	x	x	x	x	x	x	x	x	x	x	100
6	Town of Sylvan Lake & Red Deer County	x	x		x	x	x	x	x	x	x	x	90.9
7	Town of Provost & Municipal District of Provost	x	x	x	x		x	x	x		x	x	81.8
8	Brazeau County & County of Wetaskiwin	x	x	x	x		x	x	x	x	x	x	90.9
9	Camrose County & County of Wetaskiwin	x	x	x	x		x	x	x	x	x	x	90.9
10	Clearwater County & County of Wetaskiwin	x	x	x			x	x	x	x	x	x	81.8
11	Leduc County & Camrose County	x	x	x	x			x	x	x	x	x	81.8
12	Mountain View County & Municipal District of Bighorn	x	x	x	x		x	x	x	x	x	x	90.9
13	County of Paintearth & Municipal District of Provost	x	x	x	x		x	x	x	x	x	x	90.9
14	Ponoka County & County of Wetaskiwin	x	x		x		x	x	x	x	x	x	90.9
15	Red Deer County & Clearwater County	x	x		x		x	x	x	x	x	x	81.8
16	County of Wetaskiwin & Leduc County	x	x		x		x	x	x	x	x	x	81.8
17	Yellowhead County & Brazeau County	x	x		x		x	x	x	x	x	x	81.8
18	Municipal District of Provost & Villages of Amisk, Czar, & Hughenden	x	x		x		x	x	x	x	x	x	81.8
19	Village of Alix & Lacombe County	x	x	x	x	x	x	x	x	x	x	x	100
20	Village of Bawlf & Camrose County	x	x	x	x		x	x	x	x	x	x	90.9
21	Village of Bittern Lake & Camrose County	x	x	x	x		x	x	x	x	x	x	90.9
22	Village of Edberg & Camrose County	x	x	x	x		x	x	x	x	x	x	90.9
23	Village of Hay Lakes & Camrose County	x	x	x	x		x	x	x	x	x	x	90.9
24	Village of Rosalind & Camrose County	x	x	x	x		x	x	x	x	x	x	90.9
25	Clearwater County & Brazeau County	x	x	x	x		x	x	x	x	x	x	90.9
26	Village of Brenton & Brazeau County	x	x	x	x		x	x	x	x	x	x	90.9
		100%	100%	76.9%	88.5%	23.1%	96.2%	100%	100%	96.2%	100%	100%	

Table 4.9 Statistical Summary of PGG Scores, by ICF Type

ICFs' PGG SCORE	Entire Sample	V-ICFs	L-ICFs
Mean	89.5	90.5	86.76
Median	90.9	90.9	90.9
Mode	90.9	90.9	90.9
Standard Deviation	6.14	6.40	4.75

*Information Sharing and Communication (IS&C)***:** This theme is included because of its relevance

in determining collaborative outcomes. The importance of communication and information sharing

in any relationship or partnership cannot be over-emphasized. Effective communication and

information sharing play an important role in building trust, thereby strengthening relationships,

and contributing to a solid platform necessary for successful collaborations. Conversely, as

discussed in Chapter 2, and as observed by Stegelin and Jones (1991), poor communication and a

lack of information sharing can erode goodwill and can impede the success of a collaborative

exercise. Therefore, careful consideration was given to provisions contained in the study ICFs

relative to communications and information sharing.

Careful consideration was given to information sharing structures and procedures

contained in the study ICFs. Widespread use of terms like mutual covenant, mutual consent, and

consensus, which are dependent on sound communication were consistent across the ICFs and

suggest that IS&C is taken seriously by the participating municipalities. However, in absence of

specific provision they remain "words on paper". Additionally, provisions as in inter-municipal

service agreements serving as communication and conduct guide; and joint committee, inter-

municipal collaboration committee, or inter-municipal planning committee as specific bodies or

channels to shape the ICF processes are good indication of the available provisions included in the

study ICFs relative to IS&C. Fifteen agreements out of 26 either specified or made provisions for

committee and service agreement. These committees are administrative structures and facilitating

bodies for not only effective communication but enduring relationships as well. The bodies are

non-decision making but tasked with negotiating, making recommendations to councils, and

considering and managing opportunities and challenges relative to inter-municipal collaboration.

It is also noted that in most instances, information-sharing provisions contained in the study ICFs were directive, with terms like "shall" and "will" used in the context of procedural matters, as well as other considerations such as the composition committees responsible for information sharing and communication, the stipulation of quorum, and appointment of the committee leadership. Overall, over 96% of the study ICFs had provision for IS&C and terms dependent on sound communication (see TABLE 4.8). The provision in the study ICFs for information sharing and communication with this high score seem sound and should in turn promote good collaborative results. However, it was barely 60% of the study ICFs specified that communication and information sharing would take place via established channels listed above. Yet it is encouraging to see adequate provisions for communication avenues in well over half of the study ICFs. It is also encouraging that so many of the study ICFs specify administrative structures and use directive language. However, it is noteworthy that more than one-third of the study ICFs contain no provisions to facilitate information sharing and communication. Agreements stating that communication and information sharing is important but subsequently fail to provide details on how that is to be achieved, suggests a lower level of commitment to collaboration on the part of municipalities that negotiated those agreements.

(c) Thematic Group III: Emergency Services

Provisions for Emergency Services in the study ICFs: Wildfire has emerged in Canada, as elsewhere, in recent decades as a major hazard. As reported by Natural Resources Canada (NRCAN), for instance, the annual cost of wildfire protection nationally exceeded $1 billion for six of 10 years ending in 2017, and between 1970 and 2017 average costs of wildfire protection rose by $150 million per decade. And as the most costly events have occurred in inhabited areas, the ICF policy offers an excellent opportunity to put in place cross-jurisdictional institutional

arrangements to respond effectively and efficiently to wildfire through inter-municipal collaboration relative to coordinating emergency responses and marshalling necessary resources. Understanding the extent to which ICFs address emergency services, under which wildfire management is included, is vital to the first objective of this study. This theme deals with that consideration.

The entire set of ICFs examined had provisions for inter-municipal collaboration relative to emergency services as one of the core services. While the ICFs did addressed collaboration on fire they did not do so in any detail; rather they referenced 42 complementary agreements which are more detailed agreements called Inter-municipal Emergency Service Agreements (IESAs). In this theme and as a preamble to section 4.3, some basic information about the 42 agreements is examined to further consolidate the findings and understanding of the extent of collaboration generally, and more specifically in relation to wildfire in the province. The next section which will focus on details of 15 out of the 42 agreements that were accessed and analyzed in this study.

Out of these said 42 agreements, many of the ICFs referenced more than one agreement. As shown in Table 4.10, the total referenced IESAs have been assigned into one of two groups. Of the 42 IESAs identified, 14 were general in nature, committing the parties to a given agreement to provide mutual assistance in case of an emergency, but the precise nature of the emergency is left unspecified. Almost twice as many IESAs (n=28) were specific as to the nature of the emergency-related service in question, and of that number, 23 referenced fire emergencies specifically, an agreement type within which wildfire would be included. Of the 23 IESAs that reference fire, nearly 80% (18 of 23) are vertical agreements; in other words, agreements between a county or MD and a lower-tier municipality. Such arrangements offer benefits to both types of municipalities, but not the same sorts of benefits. When an upper-tier municipality enters into a service partnership with a lower-tier municipality, the costs of those services will be spread over a

larger tax-based thus achieving economies of scale that could not be realized otherwise. And the

lower-tier is relieved of the burden of setting up such emergency response infrastructure, a cost

that would be beyond the means of many lower-tier municipalities given small and often narrow

tax bases. Also shown in Table 4.10, in brackets, are value representing frequency counts for each

cell that one would expect if the IESA's were proportionately distributed in this 2 by 2 matrix.

The values are so close to one another as to suggest the absence of any underlying pattern.

Table 4.10 The Inter-municipal Emergency Service Agreements (IESAs) Grouped by Agreement
Type, and Cross Tabulated Against ICF Type

IESA Agreement Type	L-ICFs	V-ICFs	Totals
General Agreements	7 (5.67)	7 (8.33)	14
Specific Agreements	10 (11.33)	18 (16.67)	28
Totals	17	25	42

That all of the ICFs referenced emergency services, although not in detail, and therefore

were in compliance with the Provincial Government's directive at the time, was expected.

However, it is noteworthy in the context of this thesis that so many of the ICFs referenced IESAs

containing provisions specific to fire events. This suggests that inter-municipal collaboration

relative to responding to fire emergencies, including wildfire, is a high priority for municipal

officials, and implies that other extreme events, such as floods and tornadoes, are seen as lower-

probability hazards. It is also noteworthy that inter-municipal collaboration on the other two

domains of the wildfire hazard (mitigation and post-event recovery) is missing from both the ICFs

and IESAs. Table 4.11, below, provides additional details on the two types of IESAs and offers

two examples of each type.

In summation, then, none of the study ICFs offer details relative to inter-municipal

collaboration in response to emergencies, but they all reference more detailed, operational

agreements called IESAs that exist external to the ICFs and were all negotiated prior to the

introduction of the ICF policy. Additionally, a majority of the IESAs specifically identify

responding to fire events, which presumably would include wildfire events. Also noted is the

omission of any reference to inter-municipal collaboration on the other two domains of managing

and responding to the risks, which is to say pre-event risk reduction through the adoption of

various measures recommended by FireSmart Canada, and responding to post-event community

trauma. This finding demonstrates that the different domains of wildfire management defined in

this thesis and recognized in the literature, do not enjoy the same level of attention relative to inter-

municipal collaboration in Alberta. It is noteworthy that some municipalities were already

collaborating on fire services before the ICF initiative. The analysis of the IESAs in the next

section will provide more details. Without a doubt, the ICF agreements will promote more

collaborative arrangements on wildfire among municipalities going forward, and the reference of

some existing agreements indicates previously existing collaborations even on fire handling.

Table 4.11 Emergency Service Agreements (ESAs) Referenced in the Study ICFs, Categorized by Type

Agreement Type	Attributes and Other Details	Examples
General Agreements	These agreements are generic in nature. They commit the parties to assist one another during emergencies, but the nature of the emergencies is not specified. (n=14)	The ICF between Town of Sylvan Lake and Red Deer County references an "Emergency Services Mutual Aid Agreement", and the ICF between Village of Alix and Lacombe, provides a "Regional Emergency Management Agency".
Specific Agreements	As the name indicates, these agreements reference specific service area. Examples include contracted fire services, centralized asset management systems, and shared access to municipal infrastructure agreements. (n=28)	The ICF, between Village of Hay Lakes and Camrose County, references a "Regional Fire Service Agreement", and the ICF between County of Wetaskiwin and Leduc County contains provisions for a "Communications Tower Access Agreement".

4.3   Inter-municipal Emergency Services Agreements (IESAs)

4.3.1   Overview of the Study IESAs

As mentioned in the previous section, many municipalities in Alberta had entered into agreements providing for inter-municipal collaboration of emergency events prior to the introduction of the ICF policy. These agreements, called IESAs are operational as opposed to framework documents and detail the circumstances surrounding inter-municipal collaboration in terms of emergency services. These voluntary agreements were provided for in enabling provisions contained in various iterations of the Municipal Government Act, and therefore were not products of statutory requirements or policy directives from the province. That so many IESA's were identified during this research—23 of the 26 study ICFs referenced at least one IESA—speaks to the willingness of individual municipalities to engage in collaborative partnerships voluntarily and in the absence of any provincial requirement to do so. Having introduced the service agreements referenced in the ICFs in the previous section on ICFs, this section furthers the analysis of those 42 agreements and the 15 of the 42 IESAs that were able to be accessed during the data collection phase of this research.

Comparable to what was reported in the ICF section above, the available agreements have been categorized by type, although in this case in addition to L-ICFs and V-ICFs a third category has been added to the typology to accommodate agreements involving both counties/municipal districts and lower-tier jurisdictions (see, Table 4.13). This categorization revealed, among other things, the impacts of municipality types and sizes on the capacities for service needs and delivery and designated roles and responsibilities in the agreements. Later in the analysis, this categorization will be used to further interrogate the agreements.

As just noted, 23 of the 26 study ICFs referenced one or more IESAs yielding a total of 42 separate IESAs (see Table 4.12). Eight ICFs referenced a single IESA, twelve referenced two

agreements, two referenced three agreements, and one of the ICFs referred to four different IESAs. Of the agreements for which dates could be determined (13 agreements were undated), the oldest has been in place since 1989. The recent agreements, all between the County of Camrose and neighboring municipalities, came into effect in early 2018.

The most common type of IESA (18 of 42) are agreements in which one municipality, typically a smaller one, has contracted with another typically larger municipality for fire services. Such agreements obviously reflect differences in need, in that municipalities with smaller populations are likely to generate fewer fire callouts over a given period as compared to larger municipalities, as well as differences in fiscal capacity and a desire to achieve scale economies.

The next most common type of IESA (14 of 42) is those in which two municipalities agree to come to each other's mutual aid during an emergency event. A central element in such agreement is typically a provision for cost recovery. Together, these two types of IESAs account for 70% of the total.

As mentioned earlier, the considerable number of IESAs identified in this research underscores the willingness of municipalities in Alberta to enter into collaborative arrangements voluntarily, using enabling provisions in provincial legislation as opposed to following a directive from the Provincial Government. Assuming this finding is not confined to the IESAs found in the context of this research, it can be reasonably inferred that Alberta municipalities generally view inter-municipal collaboration in a positive light. That said, as the name of these agreements implies, they focus on responding to emergencies rather than avoiding them or reducing risk. This is the equivalent of a healthcare system that privileges emergency services as well as patients requiring acute care services or those with chronic illness as opposed to devoting resources to preventative medicine and health promotion programming. The exception to this observation is the IESA referenced between Yellowhead County and Brazeau County (ICF #17), which deals with

Emergency Preparedness Education. Access to this particular agreement was not possible because it was not available online, and because at the time of data collection for this study most municipalities were on lockdown because of Covid restrictions. This was unfortunate because it would have been valuable to see to what extent the agreement referenced any wildfire mitigation measures of the sort recommended by FireSmart Canada.

Table 4.12 Inter-municipal Emergency Services Agreement (IESA) Listed in ICFs to Support pre-existing Inter-municipal Collaborative Structures.

ID#	Name of Municipality	Collaborating Municipality	Details		
			Total Number of Agreements	Dates and Agreement Type	Lateral or Vertical Agreement(s)
1	Town of Bashaw	Camrose County	0	NA	NA
2	Town of Bentley	Lacombe County	0	NA	NA
3	Town of Bowden	Red Deer County	3	*Nov 2000 (General)* *Jan. 2013 (Specific)* *Mar. 2017 (General)*	Vertical
4	Town of Castor	County of Paintearth	2	Sept 2002*(General)* Jan 2017 *(Specific)*	Vertical
5	Town of Coronation	County of Paintearth	2	Sept 2002 *(General)* Jan. 2017 *(Specific)*	Vertical
6	Town of Sylvan Lake	Red Deer County	3	July 2004 *(General)* June 2010 *(Specific)* Mar. 2017 *(General)*	Vertical
7	Town of Provost	Municipal District of Provost	1	Apr 2011 *(Specific)*	Vertical
8	Brazeau County	County of Wetaskiwin	2	Dec 2018 *(General)* No Date *(Specific)*	Lateral
9	Camrose County	County of Wetaskiwin	2	2004, *(General)* June 2004 *(Specific)*	Lateral
10	Clearwater County	County of Wetaskiwin	0	NA	Lateral
11	Leduc County	Camrose County	2	May 1998 *(General)*, Dec 2017 *(Specific)*	Lateral
12	Mountain View County	Municipal District of Bighorn	1	July 2015 *(General)*	Lateral
13	County of Paintearth	Municipal District of Provost	1	No Date *(Specific)*	Lateral
14	Ponoka County	County of Wetaskiwin	1	Aug 2016 *(General)*	Lateral
15	Red Deer County	Clearwater County	1	2019 *(General)*	Lateral
16	County of Wetaskiwin	Leduc County	4	No Date *(Specific)* No Date *(Specific)* No Date *(Specific)* No Date *(Specific)*	Lateral
17	Yellowhead County	Brazeau County	1	No Date *(Specific)*	Lateral
18	Municipal District of Provost	Villages of Amisk, Czar, & Hughenden	1	No Date *(Specific)*	Vertical
19	Village of Alix	Lacombe County	2	No Date *(Specific)* No Date *(General)*	Vertical
20	Village of Bawlf	Camrose County	1	No Date *(Specific)*	Vertical
21	Village of Bittern Lake	Camrose County	2	Sept 1992 *(Specific)* Feb 2018 *(Specific)*	Vertical
22	Village of Edberg	Camrose County	2	Apr 2015 *(Specific)* Feb 2018 *(Specific)*	Vertical
23	Village of Hay Lakes	Camrose County	2	Feb 2018 *(Specific)* May 2019 *(Specific)*	Vertical
24	Village of Rosalind	Camrose County	2	Feb 2018 *(Specific)* Oct 2018 *(Specific)*	Vertical
25	Clearwater County	Brazeau County	2	No Date *(General)* No Date *(Specific)*	Lateral
26	Village of Brenton	Brazeau County	2	2008 *(Specific)* 1989 *(Specific)*	Vertical

Table 4.13 Inter-municipal Emergency Service Agreements (IESAs) Referenced in the Study ICFs by Category Type

ID#	Collaborating Municipalities	Bilateral (B) or Multilateral (M)	L-IESA	V-IESA	Multi-level Agreements
		Category Type			
1	Brazeau County & County of Wetaskiwin	B	X		
2	Camrose County & County of Wetaskiwin	B	X		
3	Camrose County, Villages of Ferintosh and Norway, & County of Wetaskiwin	M			X
4	Leduc County, City of Leduc, County of Wetaskiwin, Brazeau County & Camrose County	M			X
5	Leduc County & East West Millet Leduc County & County of Wetaskiwin	M			X
6	Municipal District of Bighorn & Mountainview County	B	X		
7	County of Paintearth, Town of Castor, Town of Coronation & Village of Halkirk	M			X
8	Red Deer County & Clearwater County	B	X		
9	Leduc County, County of Wetaskiwin & Mulhurst Bay	M			X
10	Municipal District of Provost & Villages of Amisk, Czar, & Hughenden	M		X	
11	Camrose County & Village of Bawlf	B		X	
12	Camrose County, City of Camrose & Village of Bittern Lakes	M			X
13	Camrose County & Village of Edberg	B		X	
14	Camrose County & Village of HayLakes	B		X	
15	Camrose County & Village of Rosalind	B		X	
	Total	15	4	5	6

Key:
L-IESAs: IESAs negotiated amongst counties and/or municipal districts
V-IESAs: IESAs negotiated between counties or municipal districts and towns or villages
Combined- IESAs that between more than one county and towns or villages

Analysis of the study IESA's revealed patterns of dependency and expressions of reciprocity. Typically, dependency relationships exist between municipalities of differing sizes, so it is not surprising in the V-IESAs, where smaller jurisdictions rely on larger ones for various service and emergency-response needs. Reciprocal statements typically invoked expectations of repayment if one municipality came to the aid of another in the event that the emergency services of the latter were overwhelmed or stretched beyond a specific threshold. In short, dependent

relationships were complementary in nature, while reciprocal arrangements were additive in nature. Other than the patterns described above, examining the agreement purpose according to the IESA category types did not reveal any other key observation. In summary, the existence of the IESAs underscores the willingness of municipalities to assist neighboring municipalities in time of need, but that assistance is associated with an expectation that the jurisdiction assisting is compensated financially or in kind.

This subsection further provides context related to establishing specific agreements, hoping for comparable information to the stated purpose of the ICF initiative. The expectation for including this is whether the analysis of the agreements will reveal some specific details about collaborative practices. To achieve this, the 15 agreements were scrutinized to identify the purpose of developing it, complete a frequency count of the reasons to determine the driving factors, and compare the IESAs category type for any noticeable pattern.

The services covered in the IESAs include the following: firefighting; fire suppression and rescue; emergency resolution; mutual aid during disaster events; sharing of safety and security information; provision of firefighting apparatus and equipment; formalization of rights and obligations for supply of emergency services among others. Numerous reasons (with a count of about ten unique reasons) were identified as the purpose of establishing the agreements in the IESAs examined. Prominent among these are concerns related to efficient use of resources, effective service delivery, handling capacity, and economies of scale. The costs of every municipality (especially small municipalities) having in place the personnel and equipment to fight a large-scale but low-probability wildfire are enormous. Therefore, it is more efficient to have some basic infrastructure in place, and then rely on other municipalities for assistance during events that challenges a municipality's capacity to respond. Table 4.14 shows the reasons for establishing the IESAs; additionally, it tried to establish a pattern relative to the IESA types. The

analysis revealed among the V-IESA terms like cooperate, provide, maintain, operate, guide, and collaborate. This further corroborates the findings from the literature on dependency, the nature of relationships among municipalities with different sizes, and administrative and service delivery capacities and capabilities, wherein smaller municipalities rely on the bigger ones for certain types of services.

Table 4.14 Purpose of Establishing Study IESAs

S/No	Reasons for IESAs	Type
1	Emergency coverage (Resolution of emergencies)	L-ICF
2	Emergency Management (Mutual aid for disaster event or emergency)	L-ICF
3	Provision of Emergency Services	ML-ICF
4	Information sharing for safety and security purpose	ML-ICF
5	Provision of Emergency Fire services	ML-ICF
6	Fire Suppression and rescue service	L-ICF
7	Cooperation to improve the provision of fire protection services	ML-ICF
8	Provision of emergency response	L-ICF
9	Provide emergency services by formalizing rights and obligations for the supply of emergency services	ML-ICF
10	Provide collaborative funding and operational guidance for fire and rescue operations	V-ICF
11	Firefighting (provide fire protection, cooperate to purchase, maintain and operate fire department equipment	V-ICF
12	Firefighting (provide fire protection, cooperate to purchase, maintain and operate fire department equipment	ML-ICF
13	Provision of fire services and firefighting apparatus	V-ICF
14	Fire Protection provision (cooperation to purchase, maintain and operate fire equipment)	V-ICF
15	Provide fire protection (guide for fire department operating budgets	V-ICF

All the IESAs that dealt with responding to an emergency (one agreement dealt with information sharing) contained cost recovery and cost-sharing procedures. The particular IESA agreement without the cost sharing details and monetary commitment dealt with information sharing for safety and security purposes, unlike others dealing with emergency services or fire services specifically. These include specific information about what constitutes revenues and expenses to ensure the smooth running of the agreement's objectives and facilitate an enduring relationship. A categorization of the different cost-sharing arrangements for the IESAs revealed two types: mutual aid agreements and contractual fire services agreements.

The details contained in these two types of agreements differ. A frequency count revealed

that five out of the 15 IESAs fall within the mutual-aid agreement category. All of the agreements of this type contained provisions for cost sharing and cost recovery. A typical example of the wording used was found the in 2018 "Mutual Aid Agreement" between the Brazeau County and the County of Wetaskiwin, which states "the assisting municipality shall invoice the requesting municipality for providing mutual aid". The other agreement type, the contractual fire services agreements accounted for 9 of the 15 agreements and represent ongoing collaborative arrangements as opposed to those relating to responding to specific emergency events. These agreements contained more cost-sharing details, most often outlined in provisions dealing with administration and governance, although the degree of detail varies from agreement to agreement and from partner to partner. Various arrangements were outlined, including but not limited to (a) that the municipality requesting assistance pays the bill, or the primary partner pays 50% while others pay annual cost per capita share; (b) agreed specified shared cost percentages and specific payment due dates; (c) the termination or suspension of the agreement or arrangement due to failure to pay the yearly operating cost, expense contribution or per-incident fee; (d) specified maximum annual increase of 3% for the cost of maintaining the agreement; (e) agreed-upon flat rate of $1000 per response or annual levy in some contracts, or agreed-upon $200/hr service cost fee specified in another. For further analysis, the cost-sharing arrangements was analyzed against the IESAs category types, and no particular pattern was identified.

Unlike the ICFs, the cost-related provisions contained in the IESAs were generally quite detailed. This shows the difference between the document types; ICFs are framework type agreements while the IESAs are more operational in nature. Additionally, this analysis revealed how relevant cost is to any collaborative arrangement and operational effectiveness. The details provided information about the extent of commitments to the arrangements and what it means for effective fire management. It shows that following through on the duties and obligations of the

agreements is equally as crucial as establishing or designing the collaborations.

This section provides additional information about the IESAs for comparable information on specific details on procedural elements, actions, and processes on emergency responses and wildfire generally prior to the ICF initiative. Details such as provision for dispute resolution process, the contents of the agreements constituting the process design elements of the collaborations in the IESAs as summarized in the specified expectations column in the Summary of IESAs Contents Analysis table labelled as appendix "B" are specified in the agreements. Table 4.13 above, which reports the analysis of Inter-municipal Emergency Services Agreements (IESAs) referenced in the study ICFs, shows that some agreements had multiple participants ranging from two to five with 42 IESAs in total mentioned in the 26 ICFs. This multilateral cooperation reveals the complexity of some collaborative relationships engaged in by some municipalities and further speaks to the complex collaborative landscape experienced by some municipalities. This finding reiterates the perspective that collaboration can be a complex process. Additionally, the table labeled as appendix B presents other essential elements of collaborative designs identified in the IESAs.

4.3.2 The Analysis of the IESAs Relative to the Research Objectives

Assessment of the IESAs in Relation to the Principles of Good Governance: Similar to the ICFs, this theme is included in order to address the evaluative objective of the study. It is hoped that the analyses of the KPIs present will reveal substantive information about the measures that participating municipalities in collaboration are including while designing the agreements to ensure functional and enduring collaborative relationships. It is also expected that this theme will elucidate the agreements' strengths and weaknesses and the extent of conformity to the good governance principles.

The performance indicators are outlined in the evaluation framework in Chapter 2 and are

used to evaluate the agreements. Just like the ICFs, some operational indicators are found in some

IESAs than others. Most of the agreements satisfied all the conditions except in the areas of

existing policies and norms, provision for dispute resolution, and responsiveness with less than

30% conformity, respectively. Table 4.15 summarizes how well the IESAs conformed to the PGG

as expressed by the KPIs and shows that eight of the eleven KPIs were found in every one of the

IESAs. Looking at Table 4.15, especially the PGG score column among other things, it can be

seen that the ICFs conform better to the adopted principles than the IESAs especially on dispute

resolution measures.

Similar to what was done in the ICF section, the PGG scores presented in Table 4.16 were

subjected to further analysis using the IESAs three (lateral, vertical, and multi-level) category

types to measure and determine some statistical implications, identify differences, and patterns in

the agreements' conformity to the PGG and the operational indicators. These OIs is represented

with the letter "x" in the IESA, examined in Table 4.16. In the table, the values in the bottom row

represent the number of each OI found in the study IESAs, expressed as a percentage of the total

possible, while the values in the table's far right-hand column, are the number of OIs found in

each study IESA, again expressed as a percentage of the total number of OIs. The latter values,

referred to as the overall PGG Score, is a measure of the degree to which a given IESA conforms

to the Principals of Good Governance. The average value for the scores in the bottom row is

78.2%, with a range from 13.3 to 100%, while the average for the values for each IESA shown in

the far-right column is 78.2% as well, with a range from 72.7 to 81.8%. All eleven OIs are present

in the IESAs, and distribution for each agreement was either eight or nine in the study IESAs,

which implies that no IESA had a complete score of the eleven OIs. In the IESAs, nine of the

indicators were present in 60% (nine out of 15) while eight of them in six out of 15, representing

40% of the IESAs. Noteworthy are the indicators of trust, and information sharing and

communication of Dimension 4 (Accountability), scoring 100% respectively, while dispute resolution within the same dimension only scored 13.3%.

For further analysis, a set of descriptive statistics were calculated for each agreement for any peculiar differences in the PGG scores across the three different types of IESAs. These details presented in Table 4.16 show an average distribution of less than nine out of a PGG score of 11 for each agreement across the three types of categorizations. It also reveals no particular difference or pattern among the types of IESAs relative to the PGG conformity, unlike the ICFs. Additionally, it is worth mentioning that compared to the ICFs, the IESAs scored low on provision for dispute resolution. Possible reasons for this may be that the ICF initiative specified a minimum standard of dispute resolution process that must be included in the framework, or else because the IESAs are subject specifics and the contents are much more detailed than the frameworks, thereby creating less ambiguity.

Overall, the IESAs conform well to the PGG's operational indicators, though low compared to the ICFs. In addition to confirming the strength of collaborative practices prior to the ICF initiative, these findings suggest that the collaborating municipalities are at least putting the efforts to ensure the agreements contain necessary operational and other effective measures. This also means that these agreements are designed with a high level of consciousness to ensure a realizable design outcome and an enduring relationship.

Table 4.15 IESAs Extent of Conformity to the Dimensional Structures

ID #	Collaborating Municipalities	Agreement Name	Dimension 1 Legitimacy & Voice		Dimensions 2 Direction		Dimension 3 Accountability			Dimension 4 Performance		Dimension 5 Fairness		PGG Score (%)
			Participation	Consensus Orientation	Strategic Visions	Existing Policies & Norms	Transparency/ Trust	Communication/ Flow of Information	Dispute Resolution	Responsiveness	Effectiveness & Efficiency	Equity	Rule of Law	
1	Brazeau County & County of Wetaskiwin	Mutual Aid Agreement	x	x	x		x	x			x	x	x	72.7
2	Camrose County and County of Wetaskiwin	Emergency Management Mutual Aid Agreement	x	x	x	x	x	x			x	x	x	81.8
3	Camrose County, Villages of Ferintosh and Norway, and County of Wetaskiwin	Mutual Aid Fire Agreement	x	x	x		x	x	x		x	x	x	81.8
4	Leduc County, City of Leduc, County of Wetaskiwin, Brazeau County & Camrose County	CAMS License Shared Data Agreement	x	x	x		x	x			x	x	x	72.7
5	Leduc County & East West Millet Leduc County & County of Wetaskiwin	Fire Services Agreement	x	x	x		x	x	x		x	x	x	81.8
6	Municipal District of Bighorn & Mountainview County	Fire Services Agreement	x	x	x	x	x	x			x	x	x	81.8
7	County of Paintearth, Town of Castor, Town of Coronation & Village of Halkirk	Fire Protection Services Agreement	x	x	x		x	x			x	x	x	72.7
8	Red Deer County & Clearwater County	Emergency Services Mutual Aid Agreement	x	x	x	x	x	x			x	x	x	81.8
9	Leduc County, County of Wetaskiwin & Mulhurst Bay	Mutual Aid Agreement	x	x	x		x	x			x	x	x	72.7
10	Municipal District of Provost & Villages of Amisk, Czar, and Hughenden	Fire and Rescue Agreement	x	x	x		x	x		x	x	x	x	81.8
11	Camrose County & Village of Bawlf	Fire Protection Agreement	x	x	x		x	x			x	x	x	72.7
12	Camrose County & Village of Bittern Lakes	Fire Protection Agreement	x	x	x	x	x	x			x	x	x	81.8
13	Camrose County & Village of Edberg	Fire Protection Agreement	x	x	x		x	x			x	x	x	72.7
14	Camrose County & Village of HayLakes	Fire Protection Agreement	x	x	x		x	x		x	x	x	x	81.8
15	Camrose County & Village of Rosalind	Fire Protection Agreement	x	x	x		x	x		x	x	x	x	81.8
			100%	100%	100%	26.7%	100%	100%	13.3%	20%	100%	100%	100%	

Table 4.16 Statistical Summary of PGG Scores by IESA Type

IESAs PGG SCORE	Entire Sample	V-IESAs	L-IESAs	C-IESAs
Mean	78.2	77.90	79.5	77.3
Median	81.8	81.8	81.8	77.3
Mode	81.8	81.8	81.8	81.8
Standard Deviation	4.6	4.9	4.6	5.3

*IESA in Relation to the Wildfire Hazard***:**

Section 4.2 noted that the ICFs did not cover fire or wildfire elaborately but referenced various IESAs that either generally dealt with emergency services or specifically related to fire services. In this section, discussed in more detail is pertinent information about those agreements which are 42 in total as many of the ICFs referenced more than one agreement and the 15 specific agreements accessed out of the 42 IESAs.

About two-thirds (10 out of 15) of the agreements addressed fire and fire handling, and while none of the others referenced fire specifically it can be safely assumed that fire would be captured under emergency response provision. That said, none of the IESAs referenced any form of cooperation on fire mitigation measures or post-event recovery. This finding is not especially surprising since the IESAs are designed to focus on emergency response, and any inter-jurisdiction collaboration on post-event community recovery would most likely occur between a given municipality and the provincial government.

This finding is similar to the ICFs analysis results showing certain fire domains with more coverage in the document than others. In essence, this theme revealed that municipalities in Alberta were already engaging in collaborative practices pertaining to fire handling and services. It also shows that without being directed to do so municipalities appreciate the significance of collaborative focus on fire protection and services. With the structures in place identified here participating municipalities are well positioned to call upon other municipalities in the event of a wildfire emergency should the need arise. The agreements also revealed support and dependency relationships between big and small municipalities.

4.4   Summary and Conclusions

The purpose of this chapter was to report on findings from the detailed content analysis of two sets of key documents, namely 26 ICFs and 15 of 45 IESAs referenced in the ICFs. The process

involved the evaluation of these two different agreements and the extent of conformity to the PGG. In addition, the analyses also established the extent to which the agreements address the three domains of managing and responding to the wildfire hazard.

Based on findings presented in this chapter several observations can be made. First, as demonstrated by the number of IESAs referenced in the study ICFs, many municipalities were already engaging in collaborative practices before the introduction of the ICF initiative. Moreover, these agreements were entered into voluntarily because of the enabling provisions in the Alberta's Municipal Government Act. This finding demonstrate that many municipalities see value in inter-municipal collaboration. On a specific note, three conclusions can be drawn from the analyses presented in this chapter:

1. The system is well articulated in terms of collaborative instruments to respond to emergencies, and although wildfire is not always identified by name, wildfire would be captured under the more general reference to "emergencies" in the same way that other extreme natural events, such as a flood event, would be responded to in a collaborative manner if necessary.

2. The system focuses more on emergency response and is poorly articulated in terms of preparedness or mitigation. In particular, it is noted that not one reference was found to collaboration on such mitigative measures as those recommended by FireSmart Canada.

3. Both sets of collaborative instruments compare well in relation to the Principals of Good Governance, although a larger number of the indicators of the PGG were found in the ICFs as compared to the IESAs.

CHAPTER 5: DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1   Introduction

This study intended to assess the existing inter-municipal collaborative structure on

wildfire hazard using a designed evaluative framework based on the UN Good Governance

Principles. Part of the objectives was to determine the collaborative strength between

municipalities, develop a framework for the evaluation and lastly, provide suggestions for

improvement. This research focuses on two important documents: the ICFs initiative, the new

policy direction for inter-municipal collaboration in the province, and IESAs, the link to the

historical and existing collaborative structure prior to establishing the ICF initiative. This final

chapter focuses on addressing the two research objectives, summarizing the key findings,

presenting the proposed evaluation framework developed, suggesting areas of recommendations,

identifying the research limitations and areas for future research.

5.2   Summary of Key Findings

This study analyzed the components of two essential documents related to collaboration

between municipalities in the province of Alberta. Relevant to the research's first objective, the

documents analyzed on a general note indicated a long-standing history of collaborative practices

in the province among municipalities, especially in emergency services and fire management. It

also revealed how municipalities were engaged in collaborative practices even before the

mandated collaboration through the ICF initiative. On a specific note, as gathered from the

conclusions drawn from the results in chapter four, the study revealed strong collaborative

instruments to facilitate emergency response among municipalities.

Another significant finding from this study, essential to the first objective of this research,

is the discovery that the three phases of wildfire risk management did not enjoy the same level of

attention. Findings show considerably more emphasis on the incident emergency response phase

than mitigation and post-event recovery. Additionally, the analyses also revealed the importance of the size and type of municipalities in how the collaborations are sought and designed. Finally, and relative to the second research objective, it is gathered that, based on the evaluative framework designed and employed for assessment, the analyses showed a relatively high degree of conformity to the PGG except for transparency and trust, which indicates a well-thought collaboration in terms of design elements and consideration for a positive and successful outcome or expectations.

5.3   Contributions to the Literature and Implications for Policy

After analyzing and interpreting the data collected in the last chapter, this section aims to discuss the findings from the analyses relative to the two research objectives and address policy implications and future research needs. The section also seeks to contextualize the collaborative endeavors, describes the relationships' significance and strengths, and specifically explains the collaborative robustness and capacity on wildfire through explanations and interpretations of the findings from key documents both from the literature and the researcher's perspectives. All these are discussed and organized through the next subheadings.

5.3.1   General Implications of Findings

This section discusses the general implications of the study's findings.   The section addresses questions about the components in the existing designed collaborations that can influence collaborative performances. Additionally, it describes what wildfire collaboration looks like between municipalities in Alberta. The analyzed data in this study revealed some critical findings as mentioned in the previous section, and the discussions on the general implications are organized broadly into three subheadings in this section. These discussions are organized and presented as follow:

- the description of the existing collaborative structure
- the evaluation of the collaborative process in terms of structural evaluation, and process

design evaluation

- the perspectives on the collaborative outcomes, and lastly, the summary.

Additionally, the discussion in this chapter will focus on assessing the usefulness of the UN Good governance principles for the type of problem investigated in this study.

For the evaluation of the collaborative structure, the task is to discuss the existing collaborative structure generally, and specifically regarding wildfire handling based on the current arrangement of activities and the relations between municipalities. The summary will cover findings relating to the history of collaboration and reasons for collaborations. Describing the pattern identified in the data helps understand the collaborative structure pre ICF and the ICF initiative.

In chapter four, it was reported that collaboration is indeed an embraced public and administrative tool in the province, despite the variation in the definition and perspectives of collaboration regarding context, concept, scale, and scope discussed in chapter two. The results build on Sedgwick's (2017) claim that collaboration is a vital instrument within public agencies regardless of the area. The analyses help explain numerous factors, most importantly, the diverse ongoing collaborative practices and the long-dated history of collaboration, as seen with the mutual aid agreements.

This study establishes the significance of working together on collaborative structure and capacity. This finding concurs with Bryson et al.'s (2006, p 44) position that cross-sectors "must collaborate to deal effectively with and humanely with challenges." While attempting to define collaboration in this study, the results show a strong connection between working together and collaboration, similar to how Wood and Gray (1991) identified in the existing definitions of collaboration some semblance and shortcomings relating to roles and responsibilities, how to get things done and expected outcomes. A substantial number of municipalities had a history of working relationships and partnerships, especially in emergency services, including responding to

wildfire events; over 84% of such agreements predate the ICF initiative. Among the previously-negotiated collaborative agreements, only a few references wildfires specifically. Although it is assumed that responding to wildfire would be subsumed within such agreements, but there was no reference to collaboration on mitigation efforts or post-event recovery initiatives. Even though not included in this report, the key-informant interviews help clarify why less attention is given to wildfire mitigation and post-event recovery at the inter-municipal level. These reasons are associated with finance, jurisdictional authority, cost implication, and time.

This research also revealed that although mandatory provincial obligation is the new reason driving collaboration in the province, concerns related to service funding and delivery, effective use of scarce resources in providing services, and statutory requirements are the practical reasons propelling collaborations. Although the statement above supports previous research by Sedgwick (2017), Kaiser (2011), and Johnson et al. (2003), it also provides a better understanding of leading forces pushing collaboration in the province. Findings reported here show that collaborative initiatives examined met the purpose for which they were created. This further reiterates the significance of considering the design process elements for collaborations to achieve desired outcomes. Another finding is that dependency and reciprocity norms also enhance collaborative initiatives, thereby meeting the objectives of the ICF policy.

In general, the province's collaborative structure is robust because of the municipalities' different policy-related and operational initiatives, with ICFs and IDPs being the prominent ones. Additionally, the collaborative endeavors are thriving due to the existing policy and organizational structures enshrined in most municipalities' strategic visions across the province. Additionally, the collaborative endeavors are thriving due to the existing policy and organizational structures enshrined in most municipalities' strategic visions across the province. The study also found an existing inter-municipal collaborative structure in the province that is working reasonably well and

promises an enduring future with the ICF initiative. That said, however, because many municipalities simply formalized existing collaborative arrangements under the umbrella of an ICF, the opportunity to expand the range of areas across which collaboration would take place, such as adopting a more comprehensive approach to dealing the wildfire risk, was missed.

The next is the discussion on the evaluation of collaborative process and it covers findings relating to the evaluated collaborative process in terms of the essential elements reflected in the evaluation framework. The details include discussions about the required elements present or lacking in the assessed operational and structural cooperation between municipalities in Alberta. It relates the presence or absence of these indicators to the general strength of the collaborative structure and relative to wildfire hazards in the province. Some important findings are revealed about the collaborative process, elements, and the specific design steps added by the municipalities while developing the collaborations to ensure their desired outcomes.

The study found that while the ICFs generally performed well relative to the PGG, a substantial percentage of the ICFs were wanting relative to two specific elements, namely trust and transparency. This omission is important because the absence of these elements can affect the relationship dynamics and structure of collaborative initiative, which can, in turn, affect the performance of those collaborations. Ring & Van De Van (1994) claim that these elements provide structure and meaning to mutual relations, which further reiterates what the absence of these elements could mean for having a successful and robust collaboration. Aside from these two elements, most of the ICFs, incorporated most of the necessary design elements. The requirement to review ICFs every four to five years provides the opportunity to revise and adjust agreements. Based on the findings from the PGG evaluation reported above, it is recommended that municipalities pay particular attention to the trust and transparency, and information sharing and communication process.

The next discussion on the general implications of the findings is the perspectives on collaborative outcome. study found that across the two sets of key documents used, the efficient use of resources and effective service delivery, handling capacity, and economies of scale are high on the expected outcome for collaborative initiatives. This finding is in line with the intent of the ICF policy initiative in the province, which was implemented to (a) provide for integrated and strategic planning, delivery, and funding of inter-municipal services (b) allocate scarce resources efficiently in providing local services and (c) ensure municipalities contribute funding to services that benefit their residents. Although the idea of collaboration was generally embraced by municipal officials across the province, it would be naïve not to recognize some reservations expressed towards the ICF initiative.

The general perception concerning both the ICFs and the IESAs is that such initiatives have the capacity and can significantly impact municipalities' strategic visions. ICFs certainly lay the foundation for innovative approaches to inter-municipal collaboration and thus address public policy concerns related to service funding and delivery, allocation, and use of scarce resources, and more specific IESAs underscored the value of inter-municipal collaboration relative to resources sharing and emergency response, including responding to wildfire events. Overall, then, the collaborative initiatives examined in this study fulfill the theoretical promise of inter-jurisdictional collaboration across a range of domains, including wildfire.

The final discussion on the general implications of findings, here focuses on the assessment of the UN good governance principles relative to the research problem. The literature on collaboration is extensive and spans several fields. However, the literature on collaborative practices in wildfire management is limited, even though collaborative endeavors are not uncommon when handling wildfires. This study addresses this limitation by investigating Alberta's collaborative structure and developing a collaborative framework for evaluating collaboration that

may be adapted at the local level. The study relies on good governance principles to design its evaluative criteria and achieve the research objectives.

Like other governance principles, the ideas contained in the UN's Principles of Good Governance have their origins in literatures on public policy, public administration, natural resource management, democracy, conflict management, and management practices and settings (Emerson et al., 2012). The UN Good Governance Principles have not been applied directly in inter-jurisdictional collaboration, but some of the dimensions, along with some others have been developed for and applied in different studies, as seen from the literature reviewed in Chapter 2. These principles have been applied and tested in different settings, contexts, and scope as outlined earlier, and have proven effective. Applying the Good Governance Principles for evaluation in this study revealed that for any collaboration to achieve its purpose, intended outcomes, and success over time, it must be grounded in some essential principles.

5.3.2 Contributions to the Literature and Policy

The next discussion here is specific reflection on the implications of the study to policy and the contribution to the literature. Collaboration is constantly sought across all facets of life and is no exception at the municipal level. This study has reaffirmed that for many years collaboration has been a public tool for solving and planning emergency event responses among municipalities in the Province of Alberta, even before the implementation of the ICF policy. Although this study has concluded that collaborative practices are generally sound in the province, the evaluation framework designed and employed in this study for the assessment of collaborative initiatives can serve as a helpful tool for future research on collaboration, and the framework can always serve as a guide for municipalities when designing or engaging in collaboration. In conclusion, the main contribution of this study to the literature and practice is translating the PGG, a normative tool, to an evaluative tool.

5.4   Recommendations

The study identifies a gap in the level of attention received by the mitigation and post-event recovery phase of wildfire management. It is recommended that future collaboration on wildfire should also devote more attention to these phases. This recommendation will ensure a comprehensive approach rather than the current event response-centered approach. It is also recommended that collaborations are carefully designed to yield positive outcomes. While designing collaborative agreements on wildfire management it is recommended to include the perspectives of the field personnel and all relevant stakeholders or actors for practical effectiveness and successful collaborative endeavors and outcomes. Participating municipalities should incorporate essential elements such as transparency, trust, and other mechanisms to promote enduring collaboration. Additionally, collaborating municipalities should constantly review and update collaborative agreements and make amends where and when necessary to ensure efficiency and effectiveness.

Attention will now turn to the second objective of this thesis, namely the evaluation of intermunicipal collaborative initiatives in Alberta relative to a framework derived from the UN's Principles of Good Governance. The application of that assessment tool found a very high degree of adherence to the PGG. As such, municipalities are encouraged to continue doing what they are doing and incorporate a practice always to establish a checklist system to identify and include important steps to ensure a more robust, comprehensive, and enduring collaboration. Table 5.1 below presents a proposed collaborative-framework checklist that can serve as a guide for municipalities.

Table 5.1 Collaborative Framework Developed for Checklist

KEY DIMENSIONS	OPERATIONAL INDICATORS	KEY PERFORMANCE INDICATORS	DESIGN GUIDELINES
Dimension 1: **LEGITIMACY & VOICE**	• Participation, • Consensus Orientation	• Communication, • Participation/Participatory, • Mutual Respect, • Consensus/Common Ground, • Mutual Consent, • Shared Risks & Rewards, • Mutual Aid, • Demonstration of Commitment	Define roles and responsibilities by clearly stating each participating party's obligation, responsibilities, and rights. All participants should be involved in the decision-making process concerning the collaboration. Participation should promote freedom of association and expression. All parties should be willing to arbitrate on diverse and varying interests to reach a consensus and be flexible for the greater goal of the expected outcome.
Dimension 2: **DIRECTION**	• Strategic visions, • Existing Policies and Norms (Historical, Cultural, and Social Complexities)	• Shared Interest, • Inspiration, • Clarity of Purpose/Mission/Vision, • Leadership, • Projected Use and Benefits of Service, • Effective & Ongoing Cooperation to Accomplish Shared Interest, • Stability, • Adaptability, • Partnership Agreement, • Duration	Clearly define expectations both short and long-term. Outline what needs to be achieved and where things should be. Identify existing policies that can influence collaboration. Align visions. Define Timelines. Develop measurable goals and metrics to measure the collaborative outcome. Ensure regular review for improvement.
Dimension 3: **ACCOUNTABILITY**	• Transparency/ Trust • Communication / Flow of Information, • Dispute Resolution	• Trust, • Transparency, • Responsibility, • Accountability, • Open & Transparent Relationship, • Consistent and Shared flow of Information, • Open and Timely Disclosure of Relevant Facts/Information, • Fair and Respectful Conflict Resolution Process	Promote transparency through an open and fast communication strategy. Encourage timely information sharing. Ensure rules are applied uniformly in terms of established processes and procedures. Establish functioning information sharing and communication mechanisms. Ensure consistent conformity with /to established processes. Ensure DRP provision is outlined with timeline and timeframe.
Dimension 4: **PERFORMANCE**	• Responsiveness to present & future needs, • Effectiveness & Efficiency of Service Funding and Delivery (cost effectiveness)	• Responsiveness to Needs and Aspirations, • Norms of Trust and Reciprocity	Assess the extent to which the existing institutions and processes support and promote the collaboration. Constantly identify future opportunities that can strengthen the collaboration. Communicate the performance and outcome expectations. Continuously evaluate collaborative outcomes, measure performance, and review progress and progression.
Dimension 5: **FAIRNESS**	• Equity (Cost-Sharing), • Rule of Law	• Equity, • Cost-Sharing, • Objectivity, • Equitable Service Delivery	Ensure all parties have equal access to benefits and opportunities. Promote a just and unbiased binding legal framework. Treat and apply binding agreement equally. Promote an equitable cost-sharing approach.

5.5   Limitations and Opportunities for Future Research

This section focuses on two important factors: the strengths and weaknesses of the research and future research opportunities.

5.5.1   Strengths and Limitations

A key strength of this study is the analyses of two different sets of key documents, namely the ICFs and the IESAs. This provided for an assessment of inter-municipal collaboration in the province at both the overarching framework scale (the ICFs) and the operational level (the IESAs) The two types of documents offered insights on the history of collaboration, provided timely information on collaborative practices, and revealed some important considerations necessary for effective collaboration from design and operational perspectives. Despite these advantages, there are some identified limitations, and the remaining of this section focuses on this.

The first limitation in this study is the initial scope and breadth set for the data types and data collection, because as the study progressed, it became clear that the scope was quite ambitious and perhaps too broad for a master's degree. The other limitation was the inability to access the completed and submitted ICF documents registry through the Municipal Affairs. The Covid-19 pandemic also created some limitations in accessing and analyzing more IESAs as only 15 out of 42 referenced in the ICFs were accessed, and it also made it difficult for most people that had already indicated an interest in participating in the proposed key-informant interviews to take part because most municipalities were working from home. The expected respondents were actively engaged with managing the pandemic in their respective municipalities. This limitation, among other things, forced the researcher to only report on the two sets of documents that focused on collaboration between municipalities, thereby leaving out the data gathered from the online survey and the key-informant interviews meant to provide insight on collaborative practices within municipalities. While the reported and analyzed data in this report adequately answered the

research questions, the implication in terms of limitation is that it only accounted for collaboration between municipalities as against the initial scope to evaluate the collaborative strength and capacity both within and between municipalities. This limitation also means that the study could not bridge fully the information gap earlier identified with the analyzed documents and not include the bureaucratic, policy, administrative, organizational and stakeholders' perspectives missing in document analysis to the report.

5.5.2   Focus for Further Research

One of the key findings of this study is that there is insufficient emphasis on mitigation and post-event recovery of wildfire management. This represents both a policy and operational gap that can be addressed with further research involving key actors or stakeholders in the emergency response fields and agencies within and between municipalities. This study was conducted at the initial introduction of the ICF initiative and is not reflective of the collaborative outcomes from the ICFs. Since the ICFs are scheduled for review every four or five years, this initiative will benefit from further research to capture how the documents might have evolved in terms of contents, design elements, policy and collaborative outcomes not accounted for in this study.

Additionally, further research on the performance of the ICFs, as it becomes evident, will help validate and consolidate the mandatory collaboration introduced by the municipal government as either an effective regional-development policy tool or prove right the skeptics who argue against mandatory collaboration and encourage a different policy direction. Some consider the ICF initiative as laudable and commendable, while some view it as unnecessary and probably a waste of scarce and limited resources, especially time. The section of data initially collected for this study but subsequently not included in this thesis suggests a difference in perspectives, opinions, and approaches on collaboration in the area of wildfire from the administrative bureaucrats and emergency response field personnel. Further research in this area will help align

collaborative practices across these important stakeholders. Lastly, this study did not address spatial variability issues due to the small sample size. I recommend addressing this issue in future studies.

5.6   Conclusion

This study has revealed a lot about the structure and strength of the inter-municipal collaboration in the province, both generally and with respect to wildfire management in particular, not only relative to when the ICF policy was implemented but prior to its implementation also. Through the evaluations of two sets of documents, this study has been able to identify important elements necessary for collaboration. It has also provided understanding of how the municipalities define and justify the rationale for engaging in collaboration and has provided a contextual understanding for inter-municipal collaboration. Furthermore, it explains the criteria for identifying and assessing a successful collaboration in terms of process and outcome, and points to key factors that are likely to impact collaborative success. Insights derived from the analysis of both types of key documents (the ICFs and IESAs) suggest improved levels of formal cooperation among municipalities across a range of areas, a development consistent with the ICF initiative's goals. It also shows that interest in collaboration is driven by a long-term strategic mission that is compatible and anticipated immediate benefits. It allows municipalities to either formalize an ongoing and active collaborative agreement or create a necessary collaboration, although in some cases, the collaboration looks like collation and rubber-stamping of previously existing arrangements and agreements by some municipalities. Also, through ICF and working together, municipalities can offer more services at more affordable costs. Findings indicate that although most ICFs have provision for emergency services, especially emergency response and coordination, only a handful are focused on wildfire. Where there is provision for wildfire, not all three domains of wildfire management assessed in this research have received the same level of

attention.

In addition to these key findings, it can be concluded that irrespective of whether voluntary or mandatory, municipalities generally have demonstrated commitment to collaboration and will continue to engage in collaboration because of its significance and benefits and precisely because of the direct impact of wildfire on the neighboring municipality. There is already a platform for collaboration, but without any doubt, the ICF initiative has created more awareness for collaborative practices, facilitated the avenue to standardize the collaborative process and afforded the opportunity to formalize collaborative agreements in the province.

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BYLAW NO. 2018/32

A BYLAW OF RED DEER COUNTY, IN THE PROVINCE OF ALBERTA, TO ADOPT THE INTERMUNICIPAL COLLABORATION FRAMEWORK BETWEEN RED DEER COUNTY AND THE TOWN OF SYLVAN LAKE.

Pursuant to the authority conferred upon it by the Municipal Government Act, the Council of Red Deer County hereby enacts that **Bylaw No. 2018/32** be adopted as the **lntermunicipal Collaboration Framework Between Red Deer County and the Town of Sylvan Lake** as attached hereto and marked as Schedule "A" to this bylaw.

DONE AND PASSED IN OPEN COUNCIL WITH THE UNANIMOUS CONSENT OF ALL MEMBERS PRESENT.

FIRST READING:	**OCTOBER 2, 2018**
SECOND READING:	**OCTOBER 2, 2018**
THIRD READING:	**OCTOBER 2, 2018**

_____

MAYOR
Date Signed: OUU ;).1 2018

_____

COUNTY MANAGER
Date Signed: O:.hJbvL ;;i ck)r f

Intermunicipal Collaboration Framework Between

Red Deer County

and

Town of Sylvan Lake

Bylaw No. 2018/32, Schedule "A"
September 2018

WHEREAS, Red Deer County and the Town of Sylvan Lake share a common border; and

WHEREAS, Red Deer County and the Town of Sylvan Lake share common interests and are desirous of working together to provide services to their residents; and

WHEREAS, the Municipal Government Act stipulates that Municipalities that have a common boundary must create an Intermunicipal Collaboration Framework with each other that identifies the services provided by each Municipality, which services are best provided on an intermunicipal basis, and how services to be provided on an intermunicipal basis will be delivered and funded.

NOW THEREFORE, by mutual covenant of both Municipalities it is agreed as follows:

A. TERM AND REVIEW

1) In accordance with the *Municipal Government Act,* this Intermunicipal Collaboration Framework shall come into force on final passing of matching bylaws that contain the Framework by both Municipalities.

2) This Framework may be amended by mutual consent of both Municipalities unless specified otherwise in this Framework.

3) If any of the agreements contained within the ICF expire prior to the four year review period a replacement agreement must be renegotiated or extended unless both Municipalities mutually agree that the expired agreement is no longer required. Renegotiations and/or extensions will be done in accordance with the requirements set out in the agreement. Any new, renegotiated or extended agreements will be reviewed in conjunction with all the agreements contained in the ICF every four years at which time the ICF will be updated by both Municipalities to reflect any changes.

B. INTERMUNICIPAL COOPERATION

1) The Intermunicipal Committee established under the Intermunicipal Development Plan is the forum for reviewing the Intermunicipal Collaboration Framework.

C. GENERAL TERMS

1) Both Municipalities agree that in consideration of the service agreements outlined in Section D(2) that residents of the Municipalities will be afforded the same services at the same costs, including user fees, as the Town of Sylvan Lake residents for services provided by Red Deer County and Red Deer County

residents for services provided by the Town of Sylvan Lake.

MUNICIPAL SERVICES

1) Both Municipalities have reviewed the services offered to residents. Based on the review it has been determined that each Municipality will continue to provide the following services to their residents independently:

    a. Water and Wastewater
    b. Emergency Services
    c. Recreation
    d. Affordable Housing
    e. Municipal Administration
    f. Agricultural Services
    g. Animal Control
    h. Assessment Services
    i. Bylaw Enforcement
    j. Information Technology
    k. Pest Control
    l. Police Services
    m. Purchasing/Procurement Services
    n. Weed Control
    o. Family and Community Support Services

2) The Municipalities have a history of working together to provide municipal services to the residents on an intermunicipal basis, with the following services being provided directly or indirectly to their residents:

    a. Transportation:
        o The Municipalities entered into an agreement on January 1, 2016, as a result of an approved annexation (Board Order No. MGB 048/15). The Board Order outlines the various roads that both municipalities agreed will be maintained along the Town boundaries by the County and the Town. The costs associated with the maintenance of these roads are the responsibility of the respective Municipalities.

    b. Wastewater:
        o The Municipalities jointly entered into an agreement in 2008 (Alberta Regulation 53/2008) to become members of the Sylvan Lake Regional Wastewater Commission. The Commission is managed by a Board of Directors appointed in accordance with the Bylaws of the Commission. Financial contributions to the Commission are based on the services provided to each of the member municipalities.

    c. Water:

o The Municipalities jointly entered into an agreement in 2008 (Alberta Regulation 54/2008) to become members of the Sylvan Lake Regional Water Commission. The Commission is managed by a Board of Directors who are appointed in accordance with the Bylaws of the Commission. Administrative costs are shared among the members based on a formula established under the Commission's Bylaw.

d. Recreation
o The Municipalities entered into a Recreation Agreement in April 2018. This agreement allows County residents access to the Town's recreational facilities and cemeteries in exchange for an annual grant paid by the County as per the agreement. The managing partner is Red Deer County.

e. Parkland Regional Library
o The Municipalities jointly, along with several other municipalities, entered into an agreement effective January 1, 1998, to establish the Parkland Regional Library (PRL) which is renewed on a yearly basis. The Library is managed by a Board appointed in accordance with the PRL regulation. The costs associated with the operation of the Library are paid yearly by each of the Parties on a per capita basis.

f. Assessment Services:
o The Municipalities, with additional partners, which include the Towns of Blackfalds, Carstairs, Didsbury, Eckville, Innisfail, Penhold, Ponoka, Rimbey, Rocky Mountain House, Stettler, Sundre, the Villages of Alix, Caroline, Delbume, the Summer Villages of Birchcliff, Half Moon Bay, Jarvis Bay, Norglenwold, Sunbreaker Cove, Lacombe and Mountain View Counties and the City of
Red Deer and Lacombe, have entered into agreements via individual Bylaws (Bylaw 2011/29 Red Deer County and Bylaw 1585/2011 Town of Sylvan Lake; as amended from time to time) to become Partner Municipalities of the Regional Assessment Review Board.
Both Bylaws came into effect January 1, 2012. The Managing Partner is the City of Red Deer. All Partner municipalities pay a membership fee, as well as any additional administration, board and legal fees associated with the processing of individual assessment complaints, to the Managing Partner on a cost recovery basis.

g. Emergency Services:
o The Municipalities have agreements in place to aid in the event

of emergencies. These agreements are as follows:

1. The Joint Municipal Emergency Plan dated March 2017 involving Red Deer County, the Towns of Penhold, Innisfail, Sylvan Lake and Bowden, as well as the Villages of Delbume and Elnora. The purpose of the Plan is ensure a coordinated response to emergencies affecting the municipalities. There is no assigned managing partner; however, it is recognized that Red Deer County plays the lead role in its implementation and review. There are no fees associated with this Plan.

11. Emergency Services Mutual Aid Agreement between Red Deer County and Town of Sylvan Lake which was signed on July 13, 2004. As a mutual aid agreement, there is no managing partner. Cost sharing is done on a location basis with the requesting Municipality being responsible for the costs incurred by the responding Municipality.

111. Fire Protection Services Agreement between Red Deer County and Town of Sylvan Lake which was signed on June 1, 2010. The managing partner is Red Deer County. The County provides funding to the Town of Sylvan Lake in exchange for fire protection services within the Sylvan Lake area of
Red Deer County. Funding is provided annually in accordance with a formula set out within the agreement and is reviewed on an annual basis.

h. Weed Control
   o The Municipalities entered into an Intermunicipal (Service) Agreement for Weed Inspection (2015-2019) on June 4, 2015 (amended May 1, 2018). The managing partner is Red Deer County. Fees associated with the services provided by the County are paid by the Town to the County on an annual basis in accordance with the agreement.

1. Intermunicipal Development Plan
   o The Municipalities entered into an Intermunicipal Development Plan in 2011 (Red Deer County Bylaw 2011/16 as amended & Town of Sylvan Lake Bylaw 1575/2011 as amended), in accordance with the *Municipal Government Act.* The Inte1municipal Development Plan will be reviewed in conjunction with the Intermunicipal Collaborative Framework.

3) The Municipalities acknowledge that in addition to the shared service

agreements in place between Red Deer County and the Town of Sylvan Lake, they each have independent agreements with other regional partners.

4) The Municipalities have reviewed the aforementioned existing agreements and have determined that these are the most appropriate municipal services to be conducted in a shared manner.

D. FUTURE PROJECTS & AGREEMENTS

1) In the event that either Municipality initiates the development of a new project and/or service that may require a new cost-sharing agreement, the initiating Municipality's Chief Administrative Officer will notify the other Municipality's Chief Administrative Officer in writing.

2) The initial notification will include a general description of the project, estimated costs and timing of expenditures. The other party will advise if they have objections in principle to provide funding to the project and provide reasons. An opportunity will be provided to discuss the project at the Intermunicipal Committee.

3) The following criteria will be used when assessing the desirability of funding of new projects:
    a. Relationship of the proposed capital project to Intermunicipal Development Plan, or any other regional long term planning document prepared by the Municipality;
    b. The level of community support;
    c. The nature of the project;
    d. The demonstrated effort by volunteers to raise funds and obtain grants (if applicable);
    e. The projected operating costs for new capital projects;
    f. Municipal debt limit; and,
    g. Projected utilization by residents of both Municipalities.

4) Once either Municipality has received written notice of new project, an Intermunicipal Committee meeting must be held within thirty (30) calendar days of the date the written notice was received, unless both Chief Administrative Officers agree otherwise.

5) The Inte1municipal Committee will be the forum used to discuss and review future mutual aid agreements and/or cost sharing agreements. In the event the Intermunicipal Committee is unable to reach an agreement, the dispute shall be dealt with through the procedure outlined within Section F of this document.

6) Both Municipalities recognize that the decision to participate in or not participate in a project ultimately lies with the respective municipal councils, who in tum

must rely on the support of their electorate to support the project and any borrowing that could be required.

E. DISPUTE RESOLUTION

1) The Municipalities are committed to resolving any disputes in a non-adversarial, informal and cost-efficient manner.

2) The Municipalities shall make all reasonable efforts to resolve all disputes by negotiation and agree to provide, without prejudice, open and timely disclosure of relevant facts, info1mation and documents to facilitate negotiations.

3) In the event of a dispute, the Municipalities agree that they shall unde1iake a process to promote the resolution of the dispute in the following order:
   a. negotiation;
   b. mediation; and
   c. binding arbitration.

4) If any dispute arises between the Municipalities regarding the interpretation, implementation or application of this Framework or any contravention or alleged contravention of this Framework, the dispute will be resolved through the binding Dispute Resolution Process outlined herein.

5) If the Dispute Resolution Process is invoked, the Municipalities shall continue to perform their obligations described in this Framework until such time as the Dispute Resolution Process is complete.

6) Despite F(4), where an existing intermunicipal agreement has a binding dispute resolution process included, the process in the existing intermunicipal agreement shall be used instead of the dispute resolution outlined in this Framework.

7) A party shall give written notice ("Dispute Notice") to the other party of a dispute and outline in reasonable detail the relevant information concerning the dispute. Within thirty (30) days following receipt of the Dispute Notice, the Inte1municipal Committee shall meet and attempt to resolve the dispute through discussion and negotiation, unless a time extension is mutually agreed to by the CAOs. If the dispute is not resolved within sixty (60) days of the Dispute Notice being issued, the negotiation shall be deemed to have failed.

8) If the Municipalities cannot resolve the dispute through negotiation within the prescribed time period, then the dispute shall be referred to mediation.

9) Either party shall be entitled to provide the other party with a written notice ("Mediation Notice") specifying:

a. The subject matters remaining in dispute, and the details of the matters in dispute that are to be mediated; and

b. The nomination of an individual to act as the mediator.

10) The Municipalities shall, within thirty (30) days of the Mediation Notice, jointly nominate or agree upon a mediator.

11) Where a mediator is appointed, the Municipalities shall submit in writing their dispute to the mediator and afford the mediator access to all records, documents and info1mation the mediators may reasonably request. The Municipalities shall meet with the mediator at such reasonable times as may be required and shall, through the intervention of the mediator, negotiate in good faith to resolve their dispute. All proceedings involving a mediator are agreed to be without prejudice and the fees and expenses of the mediator and the cost of the facilities required for mediation shall be shared equally between the Municipalities.

12) In the event that:

a. The Municipalities do not agree on the appointment of a mediator within thirty (30) days of the Mediation Notice; or

b. The mediation is not completed within sixty (60) after the appointment of the mediator; or

c. The dispute has not been resolved within ninety (90) from the date of receipt of the Mediation Notice; either party may by notice to the other withdraw from the mediation process and in such event the dispute shall be deemed to have failed to be resolved by mediation.

13) If mediation fails to resolve the dispute, the dispute shall be submitted to binding arbitration. Either of the Municipalities may provide the other party with written notice ("Arbitration Notice") specifying:

a. the subject matters remaining in dispute and the details of the matters in dispute that are to be arbitrated; and

b. the nomination of an individual to act as the arbitrator.

14) Within thi1iy (30) days following receipt of the Arbitration Notice, the other party shall, by written notice, advise as to which matters stated in the Arbitration Notice it accepts and disagrees with, advise whether it agrees with the resolution of the disputed items by arbitration, and advise whether it agrees with the arbitrator selected by the initiating party or provide the name of one arbitrator nominated by that other party.

15) The Municipalities shall, within thirty (30) days of the Arbitration Notice, jointly nominate or agree upon an arbitrator.

16) Should the Municipalities fail to agree on a single arbitrator within the prescribed time period, then either party may apply to a Justice of the Court of Queen's Bench of Alberta to have the arbitrator appointed.

17) The terms of reference for arbitration shall be those areas of dispute referred to in the Arbitration Notice and the receiving party's response thereto.

18) The *Arbitration Act* (Albe1ia) in force from time to time shall apply to arbitration proceedings commenced pursuant to this Framework.

19) The arbitrator shall proceed to hear the dispute within sixty (60) days of being appointed and proceed to render a written decision concerning the dispute forthwith.

20) The arbitrator's decision is final and binding upon the Municipalities subject only to a party's right to seek judicial review by the Court of Queen's Bench on a question of jurisdiction.

21) If the Municipalities do not mutually agree on the procedure to be followed, the arbitrator may proceed to conduct the arbitration on the basis of documents or may hold hearings for the presentation of evidence and for oral argument.

22) Subject to the arbitrator's discretion, hearings held for the presentation of evidence and for argument are open to the public.

23) If the arbitrator establishes that hearings are open to the public in Section 21, the arbitrator, as their sole discretion, may solicit written submissions. If the arbitrator requests written submissions they must be considered in the decision.

24) The fees and expenses of the arbitrator and the cost of the facilities required for arbitration shall be shared equally between the Municipalities.

25) On conclusion of the arbitration and issuance of an order, the arbitrator must proceed to compile a record of the arbitration and give a copy of the record to each of the Municipalities.

F. CORRESPONDENCE

1) Written notice under this Agreement shall be addressed as follows:

a. In the case of Red Deer County to:

Red Deer County
c/o Chief Administrative
Officer Red Deer County
Centre
38106 Range Rd 275
Red Deer County, AB T4S 2L9

b. In the case of the Town of Sylvan Lake to:

Town of Sylvan Lake
c/o Chief Administrative
Officer 5012-48 Avenue
Sylvan Lake, AB T4S 1G6

2) In addition to G(l), notices may be sent by electronic mail to the Chief Administrative Officer.

APPENDIX B: SUMMARY OF IESAS CONTENT ANALYSIS

Municipal Id#	Collaborating Municipalities	Name of Agreements	Purpose/ Reason	Expectations Specified	Communication Channel	Agreement Term & Flexibility	Focus on Wildfire
1	Brazeau County & County of Wetaskiwin	Mutual Aid Agreement	Collaborate in the resolution of emergencies	Direction & Control during emergency operation, Accountability related to responder personnel safety, Sharing of benefits & Risks, Cost of Mutual Aid	Mutual Aid request initiated via dispatch center	Inception, Duration, Renewal terms, Expiry and Termination process defined	No
2	Camrose County and County of Wetaskiwin	Emergency Management Mutual Aid Agreement	Emergency Management and Mutual aid for disaster event	Command and Control, Cost recovery procedure, Limitation on assistance provided (no response, full response or limited response)	Mutual Aid request initiated via elected officials	Inception and termination terms defined	No
3	Camrose County, Villages of Ferintosh and Norway, and County of Wetaskiwin	Mutual Aid Fire Agreement	Provision of Emergency Services	Control & Direction, Liability terms	Request notification, notices or correspondence in writing	Inception, withdrawal/cancellation, review and amendment terms specified	No
4	Leduc County, City of Leduc, County of Wetaskiwin, Brazeau County & Camrose County	CAMS License Shared Data Agreement	Information Sharing for Safety and Security	Liability, Voluntary participation, Withdrawal based on participant' discretion, no monetary commitment for data shared	Written permission	Agreement takes effect with written permission, withdrawal specified	No
5	Leduc County & East West Millet Leduc County & County of Wetaskiwin	Fire Services Agreement	Provision of Emergency Fire Services	Participation, cost-sharing, response expectation, direction & control, liability & Indemnity terms defined	Writing	Termination any or due to default to the agreement terms, Amendment	Yes
6	Municipal District of Bighorn & Mountainview County	Fire Services Agreement	Fire Suppression & Rescue Services	Mutual covenant, fire response, cost-sharing, consequence for obligation failure, indemnity, who is responsible for fire calls	Written notice	Termination, suspension procedure defined	Yes

7	County of Paintearth, Town of Castor, Town of Coronation & Village of Halkirk	Fire Protection Services Agreement	Emergency Response and Maintenance of Emergency response units	Cost obligations, necessary operation materials, payment dates and percentage, responsibilities and training	Writing	Termination	Yes
8	Red Deer County & Clearwater County	Emergency Services Mutual Aid Agreement	Sharing of Local Resources for Emergency Purposes	Participation, mutual covenants, cost recovery procedure, limitations to & expectations of assistance provided, damages & indemnity specified	Mutual aid request through dispatch	Termination and withdrawal terms defined	Yes
9	Leduc County, County of Wetaskiwin & Mulhurst Bay	Mutual Aid Agreement	Provision of Emergency Services. Formalizing rights & Obligations for the supply of emergency services	Align radio frequencies for communication, Response option at the discretion of responding party, level of service provision at the discretion of respective parties, control & direction, provision of maps, housing subdivision and others, communication between parties, service cost obligations	Radio, writing	Termination terms outlined	No
10	Municipal District of Provost & Villages of Amisk, Czar, and Hughenden	Fire and Rescue Agreement	Provision of collaborative funding and operational guidance for fire and rescue operations	Direction, periodic meeting, terms of council members appointments & terms, budgets & Requisitions, cost-sharing	Writing	Review, Renewal and Termination terms explained	Yes
11	Camrose County & Village of Bawlf	Fire Protection Agreement	Fire Fighting	Cooperation to purchase. Maintain and operate fire department equipment, cost-sharing, driver record expectation, regulatory requirements, level of service, Annual follow-up meetings for compliance check & review	Writing	Amendment, Review, and Termination Terms specified	Yes
12	Camrose County &	Fire Protection Agreement	Provision of Fire Service and Fire Fighting	Expedient response to incidents	Writing	Review and Termination	Yes

	Village of Bittern Lakes		Apparatus & Equipment	outside the boundary by County, cost-sharing (annual levy, maximum annual maintenance cost increase stated, Liability defined		terms specified	
13	Camrose County & Village of Edberg	Fire Protection Agreement	Solely for fire department operating budget	Responsibilities, Operating terms (equipment insurance, use of equipment & coverage, completion of schedule maintenance, repairs, crews), cost-sharing, driver's licecnce abstract, annual follow-up, activities updates, expenses and revenue defined	Writing	Review, Amendment and Termination Terms specified	Yes
14	Camrose County & Village of HayLakes	Fire Protection Agreement	Solely for fire department operating budget	Direction & Control, Cost-sharing, Responsibilities obtaining of licence for fire engines, driver's abstract, level of firefighting service appropriate, consideration for occupational health & safety for service supply, annual meeting	Writing	Review, Amendment and Termination guidelines defined	Yes
15	Camrose County & Village of Rosalind	Fire Protection Agreement	Fire protection and Fire department Operating budget	Cost commitment, task responsibility, standard of practice, level of service, participation level, safety & health consideration, revenue and expenses composition	Writing	Amendment, Termination terms specified	Yes