

Fostering Community Resiliency for Displaced Persons: A Case Study of the Saddlebrook Temporary Neighbourhood

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Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

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Abstract

In June 2013, the arid province of Alberta experienced heavy rainfall which caused rivers to overflow and flooding in urban areas. The Highwood River flood forced approximately 13,000 residents to flee their homes and the Town of High River. This case study reveals how the Government of Alberta and non-governmental actors accommodated and supported displaced persons through the provision of post-disaster temporary housing. The Saddlebrook Temporary Neighbourhood, known as Saddlebrook, was a place of community resiliency. This case study specifically examines how institutional actors collectively adapted social resources in order to foster community resiliency for displaced persons. In an era of climate change and rapid urbanization, the case of Saddlebrook contributes to increasing urban scholarship and research concerned with the displacement of urban populations after an environmental-related disaster.

Keywords: post disaster temporary housing; resiliency resources; community resiliency; displacement; High River, AB

Dedication

To the High River residents who became displaced after the Highwood River flood of 2013.

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List of Acronyms

DRP	Disaster Recovery Program
ESS	Emergency Social Services
FCSS	Family and Community Support Services
GOA	The Government of Alberta
HIS	Human Impact Services
IDMC	The Internal Displacement Monitoring Centre
IDPs	Internally Displaced Persons
IPCC	The Intergovernmental Panel on Climate Change
NTN	New Temporary Neighbourhood
OHCHR	UN Human Rights Office of the High Commissioner
TFW	Temporary Foreign Workers

Chapter 1.

Introduction

1.1. Fostering Community Resiliency for Displaced Persons

The United Nations scientific lead on the impacts of climate change, the Intergovernmental Panel on Climate Change (IPCC), has asserted that there is “high agreement” and “medium evidence” to suggest that human displacement will increase due to climate change (2019, p. 44). In the Canadian context, the Emergency Management Strategy states that disasters are more frequent and severe in the country (Public Safety Canada, 2017, p.1). In alignment with environmental related displacement literature, the Strategy states that large population displacement has arisen from environmental disasters. Human populations are increasingly becoming vulnerable to experiences of displacement as a result of climate-related environmental disturbance (Adger, 2000; Black et al., 2013; Brown & Westway, 2011; Esnard & Sapat, 2014; Tacoli, 2009; IDMC, 2018). Studies on environmental disasters have illuminated how sudden environmental disturbances can damage and destroy urban built environments and simultaneously cause significant social disturbance in the form of population displacement (Comerio, 1998; Drabek, 2003; IDMC, 2018). I situate my Masters of Urban Studies research within this latter area of study. I developed a case study to focus on the phenomenon of environmental displacement of urban populations after a rapid onset and severe urban flood. I examine the sudden emergence of a displaced population and their prolonged displacement from the Town of High River, Alberta, Canada after the Highwood River flood of 2013.

Displacement is characterized by the occurrence of forced, involuntary, or obligated movements of a population (Esnard & Sapat, 2014. p. 27 - 28). Most often, displacement is regarded as a form of “internal” migration in which population movements are typically carried out within national and regional borders.¹ The

¹ Internally displaced persons (IDPs) are defined as: “Persons or groups of persons who have been forced to flee, or leave, their homes or places of habitual residence as a result of armed conflict, internal strife, and habitual violations of human rights, as well as natural or man-made disasters

displacement of High River residents is another case of contemporary environmental migration and internal displacement. High River residents became internally displaced persons (IDPs) as the result of being obligated to leave their homes and urban environment due to overland flooding.² The Internal Displacement Monitoring Centre (IDMC), a global authority on internal displacement, estimates that 28 million new displacements occurred in 2018 and, of those displacements, 17.2 million were driven by disasters (IDMC, 2019a, p. 5-7). The majority of reported disasters were weather-related (16.1 million); these are environmental related disasters induced by cyclones, hurricanes, typhoons, storms, and floods. Specifically, 5.4 million, or almost 20 percent, of internal displacements were brought on by flooding in rural and urban areas. To demonstrate the magnitude of flood induced displacement, for example, 5.4 million of the global population of IDPs is approximately equal to a population size of the province of British Columbia, Canada (4,648,055) (Statistics Canada, 2016a).

In response to an increasing concern regarding the phenomenon of global displacement, the UN Human Rights Office of the High Commissioner (OHCHR) (2019) states the following:

As a crucial element of sovereignty, it is the Governments of the states where internally displaced persons are found that have the primary responsibility for their assistance and protection. The international community's role is complementary. At the international level, no single agency or organization has been designated as the global lead on protection and assistance of internally displaced persons. Rather, all are called upon to cooperate with each other to help address these needs pursuant to the "collaborative approach".

According to the OHCHR, national, regional, and local governments should adapt a collaborative approach to assisting and protecting IDPs. Yet, post-disaster housing and environmental displacement scholars have widely documented that governments (local to national) are underprepared, lack capacity, lack leadership, and robust resources to support populations becoming displaced (Beilin & Wilkinson, 2015; Berke & Campanella, 2006; Campanella, 2006; Johnson, 2007; Peacock et al., 2018; Tacoli, 2009; Warner,

involving one or more of these elements, and who have not crossed an internationally recognized state border." (ONHCR, 2018, p. 1)

² Hubbart and Jones state that, "A flood is loosely defined as river discharge exceeding bankfull limitations. It is also considered a temporary rise of the water level, as in a river or lake or along a seacoast or wetland, resulting in its spilling over and out of its natural or artificial confines onto land that is normally dry." (2009, p. 1)

2010). At times, government actors plan housing accommodation with adhoc and impromptu measures (Johnson, 2007). Interestingly, upon review of Alberta's emergency management policies, there is very little public documents that describe and explain how the province and local actors deal with the emergence of displaced populations after a disaster (Alberta Government, 2013a; 2013b, p.17; 2013c, p. 5, 14, & 18; 2016, p.13 & 26; 2019, p.12 & 19; Town of High River, 2014, p.14). Given the political and social responsibility of governments, along with the collaborative assistance of diverse actors, I am interested in research that examines how institutional actors respond to the displacement of urban populations after an environmental related disturbance. The significance of this research is well positioned in an era of climate emergency; when urban, regional, and national governments may increasingly need to respond to environmental related disasters and displacement.

In alignment with many urban studies and environmental displacement scholars, I contend that one of the most socially destructive and disturbing ways that urban populations are, and potentially will be, impacted by environmental disaster is in the form of displacement (Black et al, 2011; Esnard & Sapat 2014; IDMC 2018; IPCC, 2019; Levine et al. 2007; McLeman et al., 2015; Tacoli, 2009). I carried out a case study which contributes to Canadian and Global North research on how institutional actors foster "community resiliency" for flood affected, displaced persons.³ I asked the question:

After the Highwood River flood of 2013, how did institutional actors foster "community resiliency" for displaced persons, from the Town of High River, who lived in the Saddlebrook Temporary Neighbourhood, from July 2013 to August 2014?

I ask this latter question to examine how, specifically, government and non-governmental actors came together to collaboratively assist and protect IDPs. I focus on a community resiliency intervention in the form of a post-disaster temporary housing operation and a built environment for displaced persons called Saddlebrook Temporary Neighbourhood, also known as "Saddlebrook". In Chapter 2, I explain "community resiliency theory" in conjunction with environmental displacement and post-disaster

³ Empirical case studies (focused on particular subject matter pertaining to environmental migration and climate change) are disproportionately carried out within the Global South (Piguet, 2018, p.368 & 374).

temporary housing scholarship. Firstly, I provide key background information to contextualize the displacement of High River residents after the Highwood River flood of 2013.

1.2. The Protracted Displacement of High River Residents

Environment Canada stated that the Southern Alberta Flood of 2013 was “Alberta’s super flood” (Government of Canada, 2017). In the following paragraphs, I provide key background information pertaining to the sudden emergence of a displaced High River population after one of Alberta’s most devastating floods in history. I demonstrate that many of High River residents who were institutionally accommodated in Saddlebrook experienced a form of “protracted displacement” after the flood.

In June 2013, the province of Alberta experienced heavy rainfall, which caused rivers to overflow and flooding in urban and rural areas of southern Alberta (Alberta Government, 2013b, p. 4; Haney & McDonald-Harker, 2017, p. 595). Beginning on June 20th, 2013, the flood of 2013 is considered to be the most “disastrous” flood that the region had ever seen (Alberta Government, 2013b, p. 2 & 4). A total of 30 of the region’s urban areas were affected and declared “Local States of Emergency” which included 4 cities and 12 towns (Galea, 2014, p. 15). High River experienced a “flash flood”: a rapid-onset flood that typically occurs within minutes to hours of the moment of flood detection (ICIMOD, 2008, p. 2). On June 20, the highest flow rate of flood water (1850 m³ per second) was almost triple the flow rate originally predicted (650 m³ per second) (Town of High River, 2014, p. 6 & 10). According to Environment Canada, at peak flow rate, flood water flowed into High River more rapidly than the flow rate of Niagara Falls (Environment Canada, 2017). The town had never experienced a flood of this rapidity and severity before in recorded history (Government of Canada, 2015, p. 20). The rapid onset flooding had major implications for High River residents. They had to immediately evacuate their homes and town. Residents were reported to have been “swept away” or “trapped in their cars” due to flooding (CBC News, 2013). The Town of High River mandated the whole population (13,000 residents) to immediately leave their homes and town through an emergency legal mechanism called a “mandatory evacuation order” (Haney & McDonald-Harker, 2017; Gilligan, 2013). High River residents were not permitted to re-enter the town until the evacuation order was lifted (Town of High River, 2014, p. 10). In the aftermath of the flood, institutional actors came together to respond

to the displacement of Albertans, including a disproportionately impacted High River population (See sub-section 3.2 for discussion of the disproportionate impact on the High River population).

The first stage of displacement for High River residents began with their sudden and forced migration out of High River. Residents were displaced in outlying rural and urban areas and accommodated in various forms of emergency shelters (See Figure 1.1: Stage 1). Beginning on June 24, 2013, health inspectors and engineers applied a coding system to deem the post-flood status of residences as “uninhabitable”, “not immediately habitable”, “minor impact” or “habitable” (Government of Canada, 2015, p. 33-32) (See Table 1.1 & 1.2). Before residents could return home, engineers and health inspectors carried out health and safety assessments of residences. Through media communications, residents became aware of the code assigned to their home (Senger, 2013). Residential homes (38%) and rental units (92%), deemed “Code Green” and “Code Yellow”, suffered less damage. These homes and units could be re-occupied after mandatory evacuation orders were lifted in their neighbourhoods. High River residents who had residential homes and rental units assigned “Code Orange” or “Code Red” were unable to inhabit their homes.

Soon after June 24, the mandatory evacuation order was lifted by the Town of High River (Town of High River, 2014, p. 10). Yet, many High River residents were not able to return home because their residences were deemed unfit for habitation. Hundreds of High River residents were unable to return and, therefore, moved into a second stage of displacement: many displaced persons were accommodated in “temporary shelter” (See Figure 1.1: Stage 2).⁴ Approximately one-week post-flood, the GOA announced that they would provide “interim housing” (hotels and university dorms) for “displaced persons” at no charge (Gilbert, 2013; Okotoks Online, 2013). In the case of the Alberta flood, the GOA provided interim housing which I consider a type of temporary shelter: a post-disaster housing array further explained in Section 2.1.3.

⁴ The province offered temporary housing in hotels and dorms at the University of Lethbridge and University of Calgary (CTV, 2013; CBC, 2013). For example, 488 High River residents, among hundreds of other Albertans, were reported to access interim housing during the first week of July (CTV, 2013). The majority of the reported 488 High River residents, who accessed interim housing, were accommodated in university dorms in Lethbridge and Calgary (347 High River Residents). In addition, hotel accommodation was offered at the Super 8 in High River.

Table 1.1. Number and Percentage of High River residential homes habitable and uninhabitable after the June flood of 2013

CODE	Description	# of Homes	% of Homes
Green	Fit for human habitation with no impact	1,349	27%
Yellow	Minimal Impact: minor clean-up & repair	532	11%
Orange	Major impact: massive damage and renovations required; uninhabitable.	2,069	41%
Red	Critically damaged & economically unviable to renovate; uninhabitable	622	12%
No code assigned	Not applicable	460	9%
Total		5032	100%

(Table adapted from GC, 2015 and data provided by the Town of High River)

Table 1.2. Number and percentage of High River rental units habitable and uninhabitable after the June flood of 2013

Description	# of rental units	% of Homes
Habitable	366	92%
Uninhabitable	31	8%
Total	397	100%

(Source: Data provided by the Town of High River)

Table 1.3. Total residential homes and rental units deemed uninhabitable after the June flood of 2013

Description	# of homes and rental units	% of homes and rental units
Uninhabitable residential homes and rental units	2,722	50%
Total	5,398	100%

(Source: Data provided by the Town of High River)

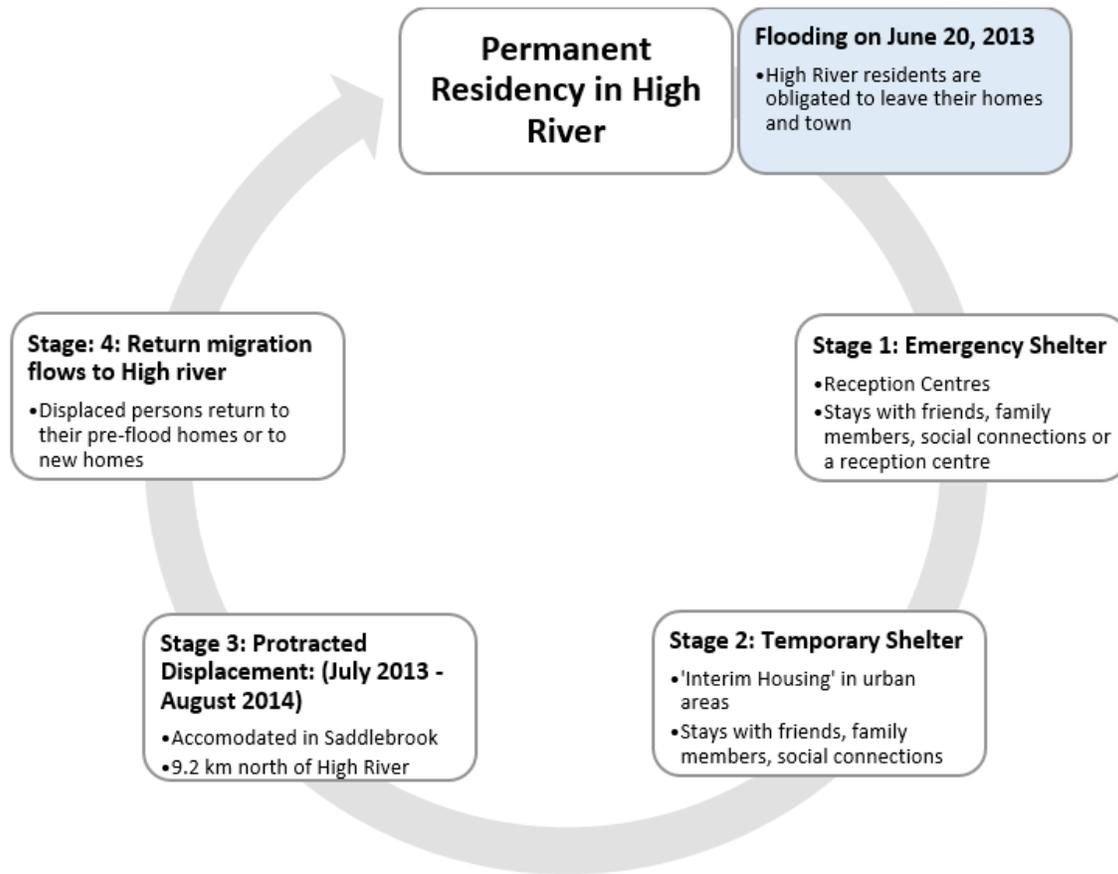


Figure 1.1. The Post-Disaster Housing Process

Urban disaster is most often correlated with a housing disaster (Comerio, 1998; Levine et al., 2007; Peacock et al., 2018). After a sudden and severe environmental related event, people will often become displaced as a result of housing damage and loss. In the case of High River, 50% of residential housing (residential homes and rental units) was damaged and lost due to flood related impacts (See Table 1.3). Weeks after the Alberta super flood, the GOA recognized that there was limited housing stock to accommodate the hundreds of displaced persons in disaster-impacted cities and towns (Alberta Government, 2013a, p. 1). As a result, the GOA, in partnership with local governments and trailer companies, made efforts to regionally plan what were called, “New Temporary Neighbourhoods” (NTNs): sites designated for prefabricated homes and with a capacity to house approximately 1200 people per site (Galea, 2014).

Saddlebrook was one of three post-disaster temporary housing operations.⁵ According to post-disaster housing typologies, Saddlebrook was a type of “temporary housing” which I discuss in detail in Section 2.1.3. On July 24, 2014, Saddlebrook was opened with the capacity to accommodate a total of 1,200 displaced persons who could not inhabit their homes after the flood of 2013 (Foothills Foundation, 2014, p. 1). When displaced persons arrive in post-temporary disaster housing, such as in the case of Saddlebrook, they find themselves in a situation of “protracted displacement” and require temporary housing until they can, if possible and desired, return to their pre-disaster home (See Figure 1.1: Stage 3).

Protracted displacement occurs when displaced persons are unable to obtain a sustainable solution to their displacement in the form of permanent housing (the end to their displacement) (IDMC, 2019a, p. 105). When urban housing is severely impacted, displaced persons may not be able to return to their urban environment for months to years. If displaced persons are unable to return to their pre-disaster homes, displaced persons may move to a new town or city. Other groups may continue to experience protracted displacement and need post-disaster temporary housing for long periods of time (Esnard and Sapat, 2014, p. 22; IDMC, 2019a, p. 105). In the case of High River residents, hundreds of displaced persons were accommodated at Saddlebrook and required accommodation for months to a year (See Table 1.4). By August 2014, the last group of families obtained “permanent community housing” and Saddlebrook closed (Foothills Foundation, 2014).

Table 1.4. Timeline of Saddlebrook’s Resident Population

Timeline: July 2013 – August 2014	Resident population	Primary Document Source
July opening	200 – 300	Rushworth, 2013
August	400	Franklin, 2013
September	1200 – 1250 (At full capacity)	High River Online, 2013
October	1047	Klingbeil, 2013
December	500	Cryderman, 2013
February	400 – 500	Graveland, 2014d
June 2014	150	Mulholland, 2014

⁵ Two out of the three NTN’s were built: The Great Plains Temporary Neighbourhood (City of Calgary) and the Saddlebrook Temporary Neighbourhood (9.2km outside of High River) (Franklin, 2013; Gilligan, 2013)

While numbers are uncertain, the IDMC predicts that there will be a rise in protracted-urban displacements due to environmental crises among other drivers of displacement (2019a, p.2). In response to a phenomenon of protracted displacement, post-disaster temporary housing is necessarily provided by government and/or non-governmental actors. Yet, in many cases, policy makers and planners often overlook preparation and planning for post-disaster temporary housing (Johnson, 2007). Post-disaster housing is one of the most important planning endeavors to protect displaced persons and assist them in: (1) their ability to cope and persist in the face of protracted displacement and (2) movement towards post-disaster recovery (Comerio, 1998; Johnson 2007; Peacock et al., 2018; Quarentilli, 1995). Displaced persons' recovery is determined by: (1) their ability to encounter permanent housing and (2) ability to return to their urban environment (if desired). The latter permits displaced persons to be able to leave a process of displacement.

The return of displaced persons to their place of residence does not always occur in post-disaster contexts (Black et al., 2011). For example, in Bell's study of Austin, Texas, displaced persons were further displaced in areas when temporary housing was remotely located in urban areas of neighbouring states after Hurricane Katrina (Bell, 2008, p. 21). Also, a black, low-income, displaced population was reported to have been unable to return to New Orleans (Groen & Polivka 2010, p. 842). Groen & Polivka demonstrate that racialized and socio-economically disadvantaged groups lacked appropriate accommodations and supports and were unable to return to their town or city. In this case, there were intentional or unintentional structural barriers within urban recovery processes that prevented disaster-affected, displaced persons from returning home. Post-disaster temporary housing is an institutionally organized intervention that can either contribute to the return and recovery of displaced persons or increase barriers to recovery. I examine how institutional actors facilitated the recovery of displaced persons through the provision of post-disaster temporary housing.

Through a community resiliency lens, I analyze research findings pertaining to the institutional provision of post-disaster temporary housing for displaced persons. Specifically, I observe how institutional actors respond to the issue of protracted displacement through the allocation of social resources within, and through, post-disaster temporary housing. The Resilience Activation Framework created, by the Resilience Working Group (RWG), is grounded in a community resiliency approach to

disaster recovery. The RWG states that communities, and individuals, have improved “resiliency” when they have “social resources” (Abramson et al., 2015; Rodriguez et al, 2018, p. 5). Community resiliency is operationalized as the collective capacity of social actors to adapt social resources, also known in other disciplines as “social capital” and “community resources”, in contexts of crisis, change, and uncertainty (Aldrich & Meyers, 2016; Magis, 2010; Rodriguez et al., 2018). Magis, a well cited community resiliency scholar, defines community resiliency as the:

Existence, development and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise (2010, p. 402).

From a social science perspective, resiliency theorists and researchers are specifically interested in how social actors at various scales deal with “change, uncertainty, unpredictability and surprise” (Magis, 2010, p. 401). Institutional actors are key social actors who have the capacity to collectively adapt social resources in the face of sudden social disturbance, such as internal displacement after an urban flood.

1.3. Alberta’s Municipal Capacity

Emergency management is widely conceptualized as a four-phase endeavor involving: mitigation, preparedness, response, and recovery (Government of Canada, 2009; Rodriguez et al., 2018, p. 392). In Canada, when provincial emergency response and recovery is required, provincial government agencies and municipalities are responsible for protecting and assisting citizens (Government of Canada, 2019, p.2). Bowerman notes that approximately 90 percent of Canadian emergencies are predominantly managed by municipal governments (2017, p.187). Hale (2013) adds that Alberta’s municipal capacity to respond to, and recover from, disasters is accompanied by a complex multi-level governance structure that distributes provincial and municipal responsibilities. This multi-level governance structure changes depending on municipal capacity in the face of a sudden disturbance; this is to say that not every municipality has the same level of capacity to respond to and recover from disaster (Hale, 2013, p.134-145). In 2011, the Emergency Management Act was amended because the Alberta Government recognized the need to provide assistance to smaller municipalities and take a regional approach to emergency management (MNP LLP, 2015, p. 57). The regionalization of emergency management is a multi-level government endeavor where

municipal and provincial actors must work together to respond to, and recover from, disaster. Furthermore, the Alberta Emergency Management Agency (AEMA) is equipped with skilled emergency management personnel and yet, capacity is limited in terms of insufficient numbers of staff (MNP LLP, 2015, p. 7-8).⁶ Hale also reveals that AEMA is dependent on the political will of ministries and many agencies to work in a coordinated manner (Hale, 2013, p. 139). In this sub-section, I touch on the different levels of capacities of Alberta's municipalities in order to provide context of why the town of High River was supported by a wide range of actors in order to accommodate and support displaced persons. Subsequently, I reveal the multi-level and multi-actors involved in the implementation of Saddlebrook.

Municipal capacity is reliant on regulatory frameworks, service provision (administered by a municipality or externally contracted), and the supportive roles carried out by provincial or "sub-provincial agencies" (Hale, 2013, p. 135).⁷ Municipal government capacity to provide emergency services (such as emergency medical services or emergency social services [ESS]) is higher amongst large Albertan cities (For more information on ESS, see Sub-Section 2.3.3). The majority of Albertans reside in large municipalities: The City of Calgary (1,239,220) and Edmonton (932,546) (Statistics Canada, 2019b). These two large municipalities have their own emergency management structures. Edmonton has an "Office of Emergency Management" that applies an "all hazards approach" and a community resiliency framework in emergency preparedness (City of Edmonton, 2019). Calgary has a "Calgary Emergency Management Agency" (CEMA) with a 52,00 sq. ft. LEED® Gold standard Emergency Operations Centre (EOC) (Bowerman, 2017, p. 186; City of Calgary, 2019). For example, CEMA has a large membership (approximately 60 members) in which many are city government members (City of Calgary 2018; 2019). Calgary and Edmonton also have their own municipal police forces (Alberta Government, 2019b). Interestingly, when the 2013 southern Alberta flood hit the region, Bowerman notes that lessons were learned in 2013 because Calgary had newly opened their EOC eight months prior to the

⁶ The AEMA is Alberta's provincial authority as of 2007. According to Alberta's Emergency Management Act, the AEMA is the leading agency in terms of prevention, preparedness, and response to emergencies and disasters (AEMA, 2019).

⁷ For a more nuanced understanding of intergovernmental relationships and emergency management framework, see Hale, G. (2013). *Emergency Management in Alberta: A Study in Multilevel Governance*. In Henstra, D. (2013). *Multilevel Governance and Emergency Management in Canadian Municipalities*. McGill-Queens University Press, Montreal & Kingston.

flood (Bowerman, 2017, p. 186). That being said, compared to other medium and smaller municipalities, the City of Calgary was able to manage the disaster through CEMA and the deployment of their own municipal resources. The case of High River was different in terms of municipal capacity and scale of disaster.

Alberta's medium sized urban areas, such as Red Deer (99,718), Lethbridge (92,729), and Fort McMurray (66,573), tend to be comprised of municipal agencies that can manage emergencies somewhat independently of the GOA compared to smaller municipalities (Hale, 2013, p. 139 – 140; Statistics Canada, 2016). In the case of Lethbridge, they operate through the municipal government arm of Fire and Emergency Services (City of Lethbridge, 2019). Since 1995, Lethbridge has made significant efforts to adapt local infrastructure after a total of four 1 in 100-year rain storms (Hale, 2013, p. 147). Before the 2013 flood, Hale describes Lethbridge's emergency structure in which city staff, city contracted personnel, and other local actors were prepared for a flood emergency (Hale, 2013, p. 150). Notably, in small towns and rural areas, these emergency management agencies are typically non-existent or emergency management structures are not as robust.

Compared to large and medium sized Albertan municipalities, the town of High River is a small sized, peri-urban area (Statistics Canada, 2019b). High River is part of the Foothills County and Municipal District (MD) Foothills No. 31 (Foothills County, 2019). These smaller peri-urban areas have volunteer-based emergency response teams or local professionals whose emergency management work is off the sides of their desks (Hale, 2013, p.136 & 142). Therefore, peri-urban and rural areas have less capacity to respond to high level emergency situations (involving local and provincial states of emergency). Hence, the 2011 Emergency Management Act amendment promotes a regionalized emergency management approach in order to permit large municipalities to provide assistance to surrounding MDs and counties. Also, in small towns and communities, the emergency management roles and responsibilities tend to move to provincial authorities when emergencies are at a large scale such as in the case of the Highwood River flood of 2013 (Hale, 2013, p. 139). Specifically, Alberta's Ministry of Housing and Municipal Affairs takes the role and responsibility of assisting and accommodating displaced persons (Alberta government, 2013a). The Ministry of Housing and Municipal Affairs was primarily responsible for accommodating a total of 2700 displaced persons in July of 2013 (Galea, 2014). A total of 1200 of displaced

persons were housed in Saddlebrook by September 2013 (High River Online, 2013). MNP LLP, a consulting firm, evaluated government-led flood response and recovery. They specifically noted:

In addition to taking specific action prior to the floods there were also a number of lessons learned that had yet to be formalized or completed but were leveraged and used “on the fly”. Clear examples of this are: procedures and actions related to housing displaced people (MNP LLP, 2015, p.65).

Significantly, Ministry of Housing and Municipal affairs provided housing for displaced person in an adhoc manner. I discuss the latter issue further in sub-section 2.2.4.

Saddlebrook was open from July 2013 – August 2014 and displaced persons had semi-permanent housing for up to a year. Saddlebrook allowed displaced persons to be housed in trailers until they encountered “permanent housing”, such as returning to their pre-disaster remediated homes or finding new homes in the same town or city. The institutional actors involved in this post-disaster temporary housing response included: several divisions of the GOA, such as the Ministry of Municipal Affairs & Housing (government), Alberta Social Housing Corporation (government), and Community Development Unit (government), as well as the Foothills Foundation (non-governmental), Outland Camp Operations (non-governmental), Hull Services (non-governmental), Family and Community Support Services (non-governmental), and the Town of High River – Human Impact Services (local government) (See Figure 1.1). Considering the four non-governmental organizations involved in post disaster temporary housing, I do not apply the term “government actors” and have applied “institutional actors” as a term to encompass all actors involved in the provision of Saddlebrook and their intention to provide protection and care for displaced persons. I chose to examine “institutional actors” as my unit of analysis: the “what” or “whom” being studied in social research (Babbie, 2015, p. 99). Institutional actors are described in regards to the following aggregates: (1) what entities (non-governmental or governmental) carried out purposive and practical action through, and in, post-disaster temporary housing and (2) how these actors fostered community resiliency through post-disaster temporary housing.

In Chapter 2, I explain “community resiliency theory” in conjunction with environmental related, urban displacement and post-disaster temporary housing scholarship in my literature review. In Chapter 3, I discuss my case study methodology.

In Chapter 4, I analyze how institutional actors responded in ways that fostered “community resiliency” according to my research results. I reveal that (1) organizational linkages & cooperation, (2) social services, (3) place attachment, and (4) a sense of community were key social resources adapted within and through post-disaster temporary housing (Brown & Westway, 2011, p. 334; Norris et al., 2008, p.136). In Chapter 5, I provide an overarching discussion of how institutional actors fostered community resiliency through and within post-disaster temporary housing. In Chapter 6, I conclude that post-disaster temporary housing became an adaptation of social resources in the form of infrastructure designed for displaced persons so that they could return home and move towards recovery (See Figure 1.1: Stage 4). In alignment with community resiliency theorists, as well as environmental displacement and post-disaster temporary scholars, I argue that institutional actors can and should strategically adapt social resources through and within post-disaster temporary housing for displaced persons. This is precisely how institutional actors fostered community resiliency in the case of Saddlebrook.

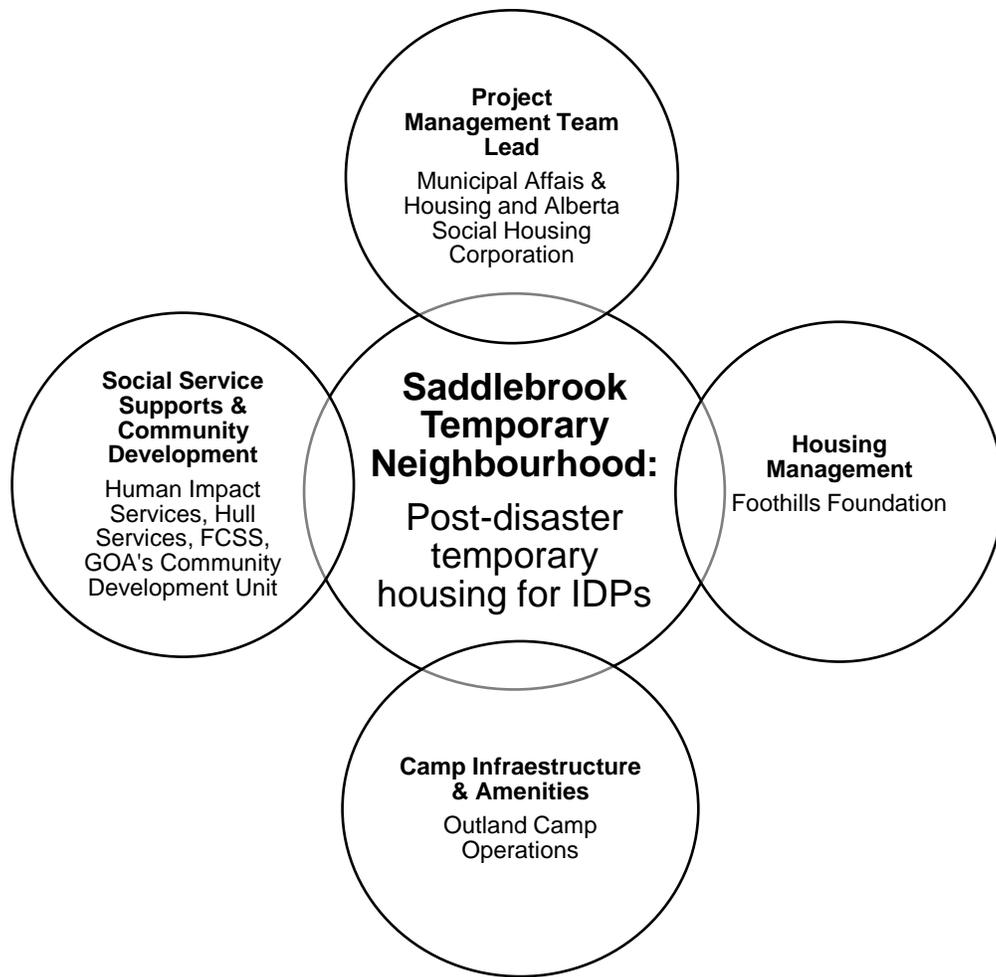


Figure 1.2. Key Saddlebrook Institutional Actors

Chapter 2.

Literature Review

Once I had transcribed and conducted a preliminary analysis of the data collected, I observed a salient and overarching theme; interviewee's narratives described lived experiences and perceptions of how Saddlebrook, a post disaster temporary housing operation, was a place and space that fostered what is called "community resiliency" within scholarship. Therefore, the notion of "community resiliency" became a central concept within my research question and analysis. The following literature review draws on three bodies of literature: (1) post-disaster temporary housing, (2) environmental related displacement, and (3) community resiliency theory. In Section 2.1, I explain the theoretical foundations of community resiliency theory and the importance of a community resiliency lens within a case study on post disaster temporary housing. In Section 2.2, I describe the issue of displacement vulnerability within a post-disaster temporary housing and protracted displacement context. In order for displaced persons to recover, institutional actors must be aware of displacement vulnerabilities and adapt social resources accordingly. In Section 2.3, I offer a community resiliency conceptual framework in which I analyze the data gathered. I discuss community resiliency theory and how this particular theoretical lens provides a solutions-focused framework to address displacement vulnerability and the challenges of post-disaster temporary housing.

2.1. Community Resiliency Theory

Community resiliency theory has been influenced by many disciplines including human psychology, socio-ecological theory, health sciences, community development, sociology, anthropology, and urban studies (Campanella, 2006, p. 142; Cox & Perry, 2011, p. 395; Keck & Sakdapolrak, 2012, p. 5; Brown & Westway, 2011, p. 326; Barrios, 2014, p. 330-32). In order to bring to light an understanding of community resiliency, I illuminate definitions that were particularly applicable amid a multitude of conceptual framings of community resiliency (Norris et al., 2008: 131). My research contributes to how resiliency is enacted in praxis and provides an empirical account of community resiliency within and through Saddlebrook. In order to understand how community

resiliency is fostered, I begin by outlining the conceptual foundation of community resiliency theory in this section.

2.1.1. Resiliency Theory

Socio- ecological theorists have widely adopted resiliency theory as an area of research and scholarship related to the ability to “resist, absorb, accommodate to and recover” from disturbances (UNISDR, 2012, p. 3). In Cutter’s (2016) article, she titles her work and asks the question: “Resiliency to What? Resiliency for Whom?” Subsequently, Meerow and Newel (2016) asked an even more detailed question in the title of their work: “Urban resilience for whom, what, when, where, and why?” Contemporary resiliency theorists, and socio-ecological resiliency theorists alike, are asking these questions to gain conceptual rigor when explaining and describing the manifestation of resiliency after a disturbance. Here, I briefly explain the theoretical foundations of resiliency theory.

Historically, the concept of resilience stems from “resilire”, a Latin word, which means “to spring back” (Davoudi, 2012, p. 300). Resiliency theory emerged out of the 1960s and 1970s (e.g. Holling, 1973) with “ecological stability theory” which monitored ecological responses to disturbances (Folke, 2006, p. 254; Vale 2014, p. 192). Within the field of physics, Norris et al. (2008) describes the notion of resilience as “the capacity of a material or system to return to equilibrium after a displacement” (p. 127). In socio-ecological theoretical currents, resiliency is defined as the ability of “a system” to return to its original form and function after a disturbance (Bhamra et al., 2011, p. 5378-79). Frameworks of ecological and engineering resiliency apply the metaphor of “bounce back ability” which is widespread in resiliency definitions (Davoudi, 2012, p. 301-02). Bounce back ability is measured in terms of how quickly it takes “a system” to return to an original state after a disturbance (Bhamra et al., 2011, p. 5379). Contemporary socio-ecological theorists observe that any given system may not, and often does not, return to its original state or bounces back (Meerow & Newell. 2016, p. 3). Adger et al. (2006) discuss how resiliency thinking has shifted from “bounce back ability” to a new conceptual understanding of resiliency as “the capacity of socio-ecological systems to adapt to uncertainty and surprise” (p.1036). In fact, crisis, change, and uncertainty are understood to be normal states of being within systems and at various social scales (e.g. individual to the societal level) (Keck & Sakdapolarak, 2013, p. 9; Magis, 2010, p. 401).

Resiliency is the ability to cope, adapt and persist amid situations of sudden disturbance, such as crisis, change, uncertainty. Resiliency is not always a resistance to a disturbance but the ability to face a disturbance. In the case of High River, I examine the ability of social actors to adapt in the face of the sudden disturbance: the sudden onset, flood disaster and human displacement. More specifically, I analyze how Saddlebrook was an adaptive response to internal, protracted displacement after the forced uprooting of the High River population from their place of residence.

When social actors are able to adapt and/or transform systemic forms and functions after a disturbance, scholars have termed this as “bouncing forward” to a new or post-disaster state (Davoudi, 2012, p. 331; Folke, 2006, p. 254; Harris et al., 2018, p.14; Meerow & Newell. 2016, p. 4; Vale, 2014, p. 197). In this latter definition, resiliency is not a resistance to change but an ability to adapt and to better cope with current and future disturbance. A common expression in resiliency theory is the ability of social actors to adapt to a “new normal” and learn from disturbance. Similarly, within the field of disaster management, the expression “build back better” emerged after the Indian Ocean Tsunami (Clinton, 2006, Lyons, 2009). The goal of a “build back better” approach, or a metaphorical “bouncing forward” approach, involves learning to adapt in the face of disturbance and becoming better equipped for imminent disturbance. Contrarily, a lack of resiliency is the inability or unwillingness to learn and adapt amidst disturbance and disaster. From a community resiliency lens, “bouncing forward” involves a network of social actors learning to adapt in the face of a sudden disturbance in order to cope and persist towards recovery (Goldstein, 2012). For the purpose of this study, I analyze research findings to understand how a social network of institutional actors (governmental and non-governmental actors) learned how to adapt in ways that accommodated and supported an urban displaced population through the provision of Saddlebrook. An attribute of resiliency is the capacity of actors to adapt or bounce forward to a new normal. An example of the latter is the building temporary housing for IDPs until they are able to return home (if possible). In this section, I have highlighted how “resiliency” is understood as a capacity of institutional actors to adapt to sudden disturbance. Importantly, I discuss how “community” is applied within resiliency theory in the following section.

2.1.2. Bringing “Community” into Resiliency Theory

Community resiliency theorists have neglected to address how precisely the notion of community is understood within resiliency theory (Mulligan, 2016: 349). Patel et al. (2017) and Mulligan et al. (2016) both title their recent publications with the question “what do we mean by ‘community resilience’?” They ask this latter question because scholars have theorized and given diverse meaning to the concept of “community resiliency”. “Community” and “resiliency” are constructs wrought with political and nuanced meaning; there is no one answer to Patel et al.’s and Mulligan et al.’s question and no straightforward or agreed upon definition of resiliency, community, nor community resiliency (Norris et al, 2008, p. 128). In order to navigate the political and theoretical milieu of community resiliency theory, I explore the notion of “community” and how I apply this notion within my case study.

The idea of “community” incites meaning of locality, a neighbourhood, communal living, or a sense of belonging (Aldrich & Meyer, 2015; Mulligan, 2016; Sharifi, 2016; Sherrieb et al, 2010). Yet, “community” can involve conflicting attributes, interests, priorities, and can also incite a sense of difference and diversity. Additionally, Mulligan et al. (2016) and Titz et al. (2018) reflect on the popularity and usage of “community” as a political term in resiliency theory. In one sense, “community resiliency” has been a politically adopted term in neoliberal discourses to put the onus on local governments and individuals to manage disasters (Barrios, 2016, p. 32; Mulligan et al, 2016, p. 359; Titz et al., 2018, p. 8). In another sense, the word “community” may be politically used to invoke an understanding that governments are supportive of community-based efforts and local participation (whether this is the case or not in practice). A critical analysis of how the notion of community is being invoked can be useful in the contested places and spaces of post-disaster contexts.

Other scholars appeal to the idea of community as a group with shared connections to a specific geographical location such as a neighbourhood, town, or city (Sharifi, 2016, p. 645). Some community resiliency scholars define community as a geographically bound site with local resources (e.g. social, cultural, economic, political, and environmental) (Cutter et al., 2008, p. 599; Sharifi, 2016, p. 630). Contradictorily, community is a word that also describes a “translocality” where virtual communities are developed based on common interests (Burawoy et al., 2000). People may never

physically meet each other within a translocal community (Mulligan et al, 2016, p. 352). For example, in a globally mobile and virtual world, people likely develop relationships and a sense of belonging with certain groups of people in many ways and on multiple scales. In sum, the notion of community takes on a range of meaning and experiences. Community can denote diverse meanings such as: connecting with people, building relationships, sharing common values and interests, experiencing difference and diversity, building a sense of belonging and collectivity beyond, or within, geographical borders and places.

Delanty (2003) contends that the essence of community is not necessarily a geographical site, such as a neighbourhood. They argue that community is more of an idealist notion of shared adversity in an ever-changing and unpredictable world. Significantly, Delanty's definition aligns within the study of community resiliency where many actors aspire to build ways to collectively cope, adapt, and persist in the midst of sudden disturbances (Aldrich and Meyer, 2015, p.255; Berkes & Ross, 2013, p. 6). In this sense, community is enacted through a collective and shared experience of disturbance. Also, Calhoun understood "community" as a "mode of relating, variable in extent" (1998: 391). In this sense, community takes on a psychosocial dimension: the existence of social relationships, bonding, and networks. I acknowledge the diverging meanings of community. However, I find Delanty's and Calhoun's description of community as helpful within a community resiliency theoretical framework. I apply the notion of community within the context of sudden displacement and disaster; community involves the building of diverse relationships in order to adapt social resources in the midst of a sudden displacement and disaster.

I analyze how social actors come together in diverse ways to foster a shared intention to protect and assist displaced persons. In agreement with community resiliency theorists, I understand "community" as a source of resiliency. In other words, resiliency is dependent on social actors and their relationships, bonds, and networks built with one another. Community resiliency is a relational concept in which actors share their adaptive capacities to respond to sudden disturbances together, not individually. The case of Saddlebrook is a case of when many social actors came together to adapt to the disturbance of internal, protracted displacement after the Highwood flood of 2013. In the next section, I explain that my M. Urb research is intended to examine community resiliency as a means to an end: the recovery of displaced persons.

2.1.3. Moving towards Recovery through a Post-Disaster Housing Process

In this section “Moving towards Recovery through a Post Disaster Housing & Community Resiliency Process”, I demonstrate three key points. First, I reveal the widely cited conceptualization of post-disaster housing as a process. Secondly, I discuss how post disaster housing and community resiliency are not mutually exclusive processes. They are interwoven processes that deserve empirical recognition within urban planning and disaster management practice. Cutter asks “Resiliency to What? Within the context of this case study, I respond to Cutter’s questions by stating that resiliency should involve displaced persons moving towards recovery through a post-disaster housing process.

The scope and scale of displacement is a challenge for researchers in terms of their capacity to collect data sets and monitor diverse migratory patterns of urban populations displaced within regions (Black et al., 2011; Findlay, 2011; IDMC 2018; McLeman 2014). However, researchers empirically observe the phenomenon of environmental related displacement as typically characterized as internal: the forced movement of populations within a region or national borders (Black et al., 2011; Findlay, 2011; McLeman, 2014; Tacoli, 2009). Many migration scholars contend that predictions of population movements beyond national borders are alarmist in nature (Tacoli, 2009). Generally speaking, urban forms of population displacement are characterized by internal movements within urban areas (intra-urban), to and from urban (inter-urban), and to and from urban and rural areas (urban-rural) (IDMC, 2018, p. 78). Knowing the challenge of being able to document the spatial movements of displaced persons from High River, my research focused on the experiences of IDPs within post disaster temporary housing. I examined post-disaster temporary housing provision because this particular type of post-disaster housing is conceptualized and empirically observed as a last and important stage in which IDPs should move towards recovery. The following is an explanation of where post-disaster temporary housing is situated in a post-disaster housing process.

Quarentelli (1982, 1991, and 1995) is widely cited for his foundational conceptual framework on post-disaster housing (Comerio, 1998; Johnson, 2007; Peacock et al., 2018). Quarantelli proposed four types of post-disaster housing: emergency shelter,

temporary shelter, temporary housing, and permanent housing. Most importantly, these types of post disaster housing typologies make up a “housing process” which can span from a few days, weeks, months, to years. **“Emergency shelter”** is conceptualized as a preliminary and rapid solution before, during, or after a disaster. This form of shelter is used for a preliminary period of time, such as hours up to a few weeks. During the first few weeks after the Highwood flood, High River residents were accommodated in what were called “reception centres” such as in Okotoks (a recreation center), Blackie (an arena), and Nanton (a recreation center) (See Figure 1.1: Stage 1) (Read, 2013). Reception centres provided hundreds of people with cots to sleep on, food, and washrooms. In the case of High River, people were not allowed to return to the town until the mandatory emergency evacuation order was lifted 9 days after the flood (Town of High River, 2014, p. 10). However, following these 9 days, hundreds of displaced persons were unable to return after the mandatory emergency evacuation order was lifted because their homes were deemed damaged or irreparable (See Table 1.1 & 1.2) (Government of Canada, 2015, p. 33). They continued to be in need of shelter beyond the emergency shelter phase (a few weeks).

In comparison with emergency shelter, **“temporary shelters”** are characterized as a medium-term solution (e.g. for weeks to months) (Peacock et al., 2018, p. 571). The conceptual lines between emergency and temporary shelter are not always clear in some cases (Peacock et al., 2018, p. 572). Markedly, Quarentilli (1995) indicates that temporary shelters continue to have characteristics much like emergency shelters. Temporary shelters may continue to impede displaced persons ability to carry out daily activities (Peacock et al., 2018, p. 572). Pointedly, both emergency and temporary shelters tend to not be designed in ways that enable displaced persons to return to their pre-disaster livelihoods and daily activities. Also, temporary sheltering is considered as a housing array which tends to develop weeks after a disaster (Johnson, 2007, p. 436). In the case of the Alberta flood of 2013, I consider “interim housing” (e.g. hotel and university dorm accommodation provided by the GOA) as a form of temporary shelter (Gilbert, 2013; Okotoks Online, 2013). After a few weeks of the flood, interim housing was a housing solution when reception centres closed down and while NTN, such as Saddlebrook, were being built for displaced persons.

“Post-disaster temporary housing” is characterized by a form and function that should enable displaced persons to return to more “normal life” activities (Felix et

al., 2013; Peacock et al, 2018; Quarentelli, 1995). Johnson (2007) has documented the diverse built forms of post disaster temporary housing in many post disaster contexts. Many case studies have focused on government provided post-disaster temporary housing such as bursaries for rental housing or the provision of trailers, prefabricated homes, and other forms of temporary built environments (Johnson, 2007, p.437). Also, temporary housing is created when displaced persons are unable to obtain permanent housing after a disaster. When the latter situation occurs, displaced persons are understood to be experiencing a form of protracted displacement and, most likely, they will need accommodation for months to years. In the case of High River, the Government of Alberta responded to the issue of protracted displacement of High River residents by funding the construction and management of NTN's (City of Calgary, 2013). The inability of displaced persons to return home has been widely captured by case studies on post disaster temporary housing (Campanella, 2006; Groen & Polivka, 2010; Nigg et al, 2006; Bell 2008; McLeman 2014; Peacock et al., 2018; Zhang and Peacock, 2010). Trailers are one housing array utilized to accommodate displaced persons who have been displaced for months to years. From the onset of disaster until displaced persons are able to be resettled or rehoused is a "time gap" (Hosseini et al., 2016, p.1). Temporary housing precisely aims to bridge a time gap when displaced persons find themselves in a situation of protracted displacement and require temporary housing until they can, if possible and desired, return to their pre-disaster home.

Saddlebrook permitted displaced persons to be housed in trailers for up to a year until they obtained "**permanent housing**". Displaced persons who live in post-disaster temporary housing will often work towards obtaining a permanent housing solution such as returning to their pre-disaster remediated homes or finding new homes in the same town or city (Levine et al., 2007). Alternatively, displaced persons may move to a new urban or rural area. In the case of displaced persons from High River, permanent housing recovery involved assistance from the Disaster Recovery Program (DRP: a GOA financial assistance program for disaster affected populations) and private household insurance (Alberta Government, 2018). Additionally, for those who did not have insurance and were unable to encounter permanent housing, the GOA purchased an apartment complex called "Coal Trail" (Foothills Foundation, 2014). Displaced persons, who are finally able to obtain permanent housing, will experience an end to their displacement and exit the post-disaster housing process. Temporary housing is an

indicator of a resiliency mechanism (the means to adapt to a disturbance). Through temporary housing, displaced persons are ideally accommodated and protected while in a situation of protracted displacement until they can obtain permanent housing.

According to Quarentilli's post-disaster housing typologies, temporary housing is the last stage until displaced persons move towards recovery. The case of High River demonstrates examples of post-disaster housing arrays that can be classified by Quarentilli's housing typologies. In this case study, I have found these post-disaster housing typologies helpful in terms of conceptually defining IDPs' movement through a post-disaster housing and community resiliency process towards recovery (See Figure 1.1 in Section 1.2). Some disaster affected populations will simply need emergency housing; while other groups may experience protracted displacement such as becoming entrenched for years in post-disaster temporary housing (Felix et al., 2013; Peacock et al., 2018; Johnson 2007). In the case of displaced persons from High River, institutional actors ensured post disaster temporary housing provision for displaced persons. Along with community resiliency scholars, I argue that displaced persons, who are faced with protracted displacement, should be protected and assisted by institutional actors through post-disaster temporary housing. However, post-disaster temporary housing is not a perfect solution. I reflect on the many challenges of post-disaster temporary housing; these challenges can further contribute to protracted displacement and what is called "displacement vulnerability".

2.2. Displacement Vulnerability in Post-Disaster Temporary Housing

The concept of "vulnerability" is embedded within post-disaster temporary housing, environmental displacement, and community resiliency scholarship (Berkes, 2007; Cutter, 2008; Esnard & Sapat, 2014; Kendra et al., 2018; McLeman, 2014). Many scholars understand vulnerability to be a "cause, condition, or consequence of disaster" (Rodriguez, 2018, p. 13). Protracted displacement can be a consequence of disaster and an attribute of vulnerability (Esnard & Sapat, 2014; IDMC, 2018). I reveal four key issues that stand out in the literature. I discuss how (1) collective trauma and psychosocial stress (2) socio-economic disadvantage, (3) inappropriate housing, and (4) adhoc planning are key issues correlated to displacement vulnerability. From a community resiliency lens, in Section 2.3, I discuss how institutional actors can assist in

addressing these four displacement vulnerabilities through a focus on the adaptation of social resources.

2.2.1. Collective Trauma and Psychosocial Stress

Collective trauma and psychosocial stress are a displacement vulnerability. On a community scale, disasters are known to create collective experiences of mental health and psychosocial stressors (Barrios, 2014; Cox & Perry, 2011; Erikson, 1976; Ritchie, 2012; Saul 2014). Saul (2014), a psychology and community resiliency scholar, contends that a well-known impact of disaster is the experience of “collective trauma” in which whole populations experience social, cultural, economic, and physical stress as well as other serious impacts within their lives. For example, loss of employment and housing has significant financial implications and causes financial stress for displaced persons. Also, displaced persons are highly susceptible to chronic anxiety, and post-trauma stress disorder (PTSD), survivor guilt, a sense of loss of control, and grief and trauma from relationship loss and breakdown (Bell, 2008; Esnard & Sapat, 2014; Saul, 2014). Esnard and Sapat acknowledge that heightened stress occurs when displaced persons are disconnected from their families and support networks for long periods of time (2014, p. 150). Collective trauma and psychological distress are closely linked to a key theme which I mentioned in the first paragraph of my M. Urb thesis; Disaster induced displacement is a social disturbance: a loss and breakdown of social relationships and networks as a result of becoming uprooted from one’s community (Drabek, 2003). When displacement occurs after a disaster, whole populations will be affected by (1) shared experiences of mental health and psychological challenges and (2) the experience of losing social connections, networks, and relationships within their community (Saul, 2014). Within this section, I highlight that displaced persons are most commonly referred to as a sub-group of a disaster-affected population who experiences trauma and psychosocial stress after an environmental disaster.

Erikson (1976) describes collective trauma as the shared experience of loss and damage to the social fabric (the social networks and ties) of a community (Erikson, 1976). The experience of social loss, disconnect, and marginalization involves some level of psychosocial stress for displaced persons (Brown and Westway, 2011; Bolin & Kurtz, 2018; Esnard & Sapat, 2018; Kemp & Palinkas, 2015; Oliver-Smith, 1990). When hundreds or thousands of people from a town or city are displaced as a result of flooding

and other extreme environmental events, empirical studies have shown how displaced persons experience psychosocial stress and collective trauma (Ritchie, 2012; Spokane et al., 2012; Barrios 2014). Erikson (1976) is well cited in literature on collective trauma and environmental disaster. In their study “Everything in its Path: Destruction of Community in the Buffalo Creek Flood”, Erikson describes protracted displacement as a form of trauma (Rodriguez et al., 2018, p.43). Protracted displacement usually involves the prolonged experience of up-rootedness from social support networks (Crawford, 2015, p. 43). While being in a long process of displacement, displaced persons are vulnerable because they have become disconnected from their social networks. As a result, displacement is a traumatic and psychosocially stressful event.

Spokane et al. (2012) notes that disaster affected, displaced persons in the aftermath of Katrina were “dispersed” in housing arrays with little consideration for their proximity to places of residence. They contend that the site location of temporary housing contributed to displaced persons’ experience of trauma due to a sense of social disconnect from their community (2012, p. 906). Johnson (2007) cites Bolin’s study (1982) on the long-term recovery of families who were displaced due to disaster. Johnson highlights that families, residing in temporary housing, were found to have more difficulties with psychological recovery when they did not know when, or if, they would be able to return home and obtain permanent housing (2007, p.454). Similarly, Bell (2008) makes the linkage between trauma associated with displacement and the challenges of recovery. Social workers noted that loss of social relationships and support networks was correlated with the slow recovery of displaced persons after Hurricane Katrina (Bell, 2008, p. 21- 22). In the most extreme and tragic cases, for example, El-Anwar et al. (2016) describes the case of post-disaster temporary housing involving high suicide rates. Displaced persons were reported to commit suicide as the result of increased social isolation from their pre-disaster communities and in conjunction with experiences of post-disaster grief, trauma, and loss (El-Anwar et al., 2016, p.1). The experience of collective trauma and psychosocial stress as a displacement vulnerability is well cited in case studies on protracted displacement, post-disaster temporary housing, and environmental disaster studies.

Displaced persons commonly experience loss and destruction of homes, material possessions, death of loved ones, loss of social supports, and other disaster related events (Esnard & Sapat, 2018). Along with multifaceted experiences of damage and

loss, displaced persons who arrive in temporary housing, will have had prolonged experiences of moving through a post-disaster housing process in which they have not found a permanent solution to their displacement. They may obtain institutionally provided temporary housing and continue to be socially disconnected from social ties and networks. Displaced persons in temporary housing are vulnerable to experiencing multilayered forms of trauma and stress due to an unresolved and prolonged experience of displacement and disaster related losses and damages. Additionally, volunteers and non-governmental organizations often provide psychological supports immediately after a disaster but medium to longer term psychosocial assistance is usually lacking (Esnard & Sapat, 2014, p. 152). In order to promote an integrated community resiliency approach within post-disaster temporary housing, institutional actors should provide the opportunity for displaced persons to access psychological services and supports: a key social resource. This case study will examine how institutional actors fostered community resiliency through psychological services embedded in a post-disaster temporary housing operation

2.2.2. Pre-Existing Socio-Economic Disadvantage

Vulnerability can also be a pre-existing condition in disaster contexts (Bolin & Kurtz, 2018, p. 198). Pre-existing socio-economic disadvantages of sub-groups of displaced persons are manifestations of displacement vulnerabilities (Spokane et al., 2012). Bolin and Kurtz (2018) state that most often pre-disaster socio-economic factors contribute to vulnerability such as:

Class, race, caste, ethnicity, gender, age, poverty, disability, and immigration status as well as a variety of community and regional scale factors (p.184).

Subgroups of a population, who are socio-economically disadvantaged prior to a disaster, will be disproportionately affected by disaster and displacement (Esnard & Sapat, 2018, p. 432). Significantly, socio-economically disadvantaged groups, who become displaced after a disaster, commonly experience a prolonged period of displacement and will often need temporary housing (Esnard & Sapat, 2018, p. 432; Peacock et al., 2018; Spokane, 2012, p.888). I have previously mentioned (in Chapter 1: Section 1.2 on protracted displacement) Groen & Polivka's study as evidence of a black, low-income, displaced population who had barriers to returning to New Orleans after

Hurricane Katrina compared to white displaced populations (Groen & Polivka 2010, p. 842). However, this latter case study is one study, out of many, which illuminates the vulnerability of socio-economically disadvantaged groups after an environmental disaster (Bolin & Kurtz, 2018, p.188; Campanella, 2006; Elliot & Pais, 2006; Mueller et al., 2011; Zhang & Peacock, 2010). In this section, I reveal that the socioeconomic disadvantages of sub-groups of a displaced population can increase their susceptibility to protracted displacement and need for temporary housing.

In Bell's social work study of "displaced survivors" from Hurricane Katrina, IDPs were stated to have "pre-existing inequities", compounded with disaster related trauma, as well as a lack of affordable housing, employment, and access to transportation (2008, p. 24). A complex array of factors impeded displaced persons' timely recovery, in terms of becoming "self sufficient", after disaster. Bell states:

The extended displacement of thousands of survivors from their homes and natural social supports was a unique feature of this catastrophe. In part because of survivors' pre-existing disadvantages, as well as the limited resources in Texas, survivors are making slow progress toward self-sufficiency (p.25).

Protracted displacement is attributed to pre-existing socio-economic disadvantages in Bell's study. The IDMC (2016) also argues that poverty and inequality, and other forms of socio-economic disadvantage, are key drivers of protracted displacement. Scholars, such as Bell, are interested in the provision of disaster assistance and protection of internally displaced persons (IDPs) in a situation of protracted displacement and socio-economic disadvantage. I focus on how to provide assistance and protection through, and within, post-disaster temporary housing for IDPs.

Johnson (2007) and Comerio (1998) documented the case of the Great Hanshin earthquake in Kobe, Japan, 1995. In the case of Kobe, the most impacted areas were home to a population of elderly and low-income groups and they were accommodated in post-disaster temporary housing. After Hurricane Andrew, Peacock et al. (1997) reveals that socioeconomically disadvantaged groups and large families (who could not be accommodated in permanent homes) were provided temporary trailers. Spokane et al. found that 74 to 84 percent of renters before Katrina were in trailer parks and other temporary housing arrays (2012, p. 889). These three case studies reveal that post-disaster temporary housing accommodates socio-economically disadvantaged groups

after a disaster such as low-income groups, elderly, large families, and renters. Protracted displacement and the need for post-disaster temporary housing can be understood as a consequence of a complex array of pre-existing socio-economic disadvantages in conjunction with post-disaster factors (e.g. collective trauma).

Tierney, Lindell, and Perry's (2001) discussion of socioeconomic vulnerability and post-disaster housing is cited in Peacock et al.'s chapter (2018) on "Post-Disaster Sheltering, Temporary Housing and Permanent Housing Recovery". These scholars clarify that not much research has been carried out since the 80s and 90s in terms of "post disaster housing patterns across social classes, racial/ethnic groups, and family types ..." (Peacock et al., 2018, p.570). My research was unable to include this latter type of research due to the limitations of the scope of my M. Urb thesis project. However, I acknowledge that socio-economic disadvantage, protracted displacement, and the need for post-disaster temporary housing are not mutually exclusive dimensions after an urban disaster. I am unable to specifically examine the issue of socio-economic vulnerability in post-disaster temporary housing. However, I illuminate data results accompanied with an analysis of the adaptation of social resources, in the form of received social supports, a sense of community, place attachment, and organizational linkages. My community resiliency analysis of data gathered demonstrates the intention of institutional actors to mitigate socio-economically vulnerability within post-disaster temporary housing.

2.2.3. Inappropriate Housing

Considering that IDPs tend to experience displacement vulnerabilities in the form of collective trauma, psychosocial distress, and socio-economic disadvantage, I contend that institutional actors must provide protection and assistance to IDPs after a disaster. IDPs are a sub group of a disaster affected population which is particularly vulnerable. Post-disaster temporary housing continues to be a common and critical response in order to accommodate IDPs from urban areas who experience protracted displacement and displacement vulnerabilities (Comerio, 1998). For example, temporary housing was built for urban IDPs in the aftermath of earthquakes in: the city of Yungay, Peru (1970), the central city of L'Aquila, Italy and Abruzzi region (2009), the city of Kobe, Japan (1995), and the country of Chile (239 municipalities) (2010) (Comerio, 2014; Johnson, 2007). New Orleans, USA (2005), Piura, Peru (2017), and Houston, USA (2017) are

other urban examples in which temporary housing was implemented as the result of a flood related disaster (Nigg et al., 2006; Ramirez & Sanchez, 2018). Empirical research illuminates common issues that arise in the post-disaster temporary housing process (El-Anwar et al., 2013; Hass et al., 1977; Johnson, 2006; Kates & Pijawka, 1977; Nigg et al., 2006; Quarantelli, 1995). I focus on two key challenges that arise pertaining to the design of post-disaster temporary housing for IDPs: (1) the inappropriate built form and function of temporary housing and (2) the unsuitable site location of temporary housing. These two latter challenges of inappropriate temporary housing contribute to displacement vulnerability.

Post-disaster housing scholars have been critical of built form and function of temporary housing (Comerio, 1998; Hosseini, 2016; Johnson, 2007, Oliver Smith, 1990; Nigg et al., 2006; Peacock et al, 2018). Oliver Smith (1990) has argued that temporary housing materials and design take on social meanings for individuals, groups, and whole communities (p.9). In the case of the city of Yungay, Peru, after a devastating urban earthquake in 1970, residents were provided with post-disaster housing (Oliver Smith, 1990). Housing materials were not culturally similar to pre-disaster housing materials and were considered of sub-standard quality compared to pre-disaster homes. City residents looked upon the post-disaster housing-built environment as a socio-economically disadvantaged place which incited social stigma towards the temporary housing community. Rather than mitigate vulnerability, the built form of temporary housing can further promote stigma and social segregation: a form of social vulnerability.

When in a situation of protracted displacement, IDPs should be enabled to return to pre-disaster activities (e.g. return to jobs, re-connect with social networks) and achieve some level of perceived normalcy (Felix et al., 2013, p. 140; Johnson, 2007, p. 454; Oliver Smith, 1990, p. 14; Norris et al, 2008, p. 134). In Oliver Smith's (1990) case study, the placement of homes was on the margins and hills surrounding the city of Yungay in which residents lacked access to services. In E- Anwar el al.'s (2009) and Hooseini et al.'s (2016) review of recent studies shows that displaced persons lives were complicated because they could not easily obtain or maintain employment and social connections as a result of their displacement.⁸ Post-disaster temporary housing

⁸ Hooseini reveals the following problems with site locations of post-disaster temporary housing "(1) losing previous social communities; (2) not fitting in new communities; (3) inadequate access to urban

provision has been known to lack a sense of normalcy; the opposite of what temporary housing is supposed to accomplish.

When housing stock is damaged in an urban area, planners will need to find a means for land procurement (Esnard & Sapat, 2018, p. 440; Hooseini et al., 2016, p. 1; Johnson, 2007, p. 456). Yet, available urban land in pre-disaster conditions is challenging to obtain. Most often, temporary housing is built on outlying land close to towns and cities. Displaced persons will struggle to maintain their pre-disaster livelihoods when living away from their homes and community. In Bell's study of Austin, Texas, displaced persons were accommodated in available housing arrays in urban areas and different states after Hurricane Katrina (Bell, 2008, p. 21). Also, Groen and Polvika found that various factors such as time, financial costs of moving, and financial costs associated with the recovery of damaged homes, as well as psychological stressors, prevented many displaced persons' ability to return to their homes after Hurricane Katrina (2010, p. 823). Similarly, Barrios (2014) discusses how displaced persons were accommodated in homes on the outskirts of cities. Displaced persons described their substandard housing as a place that incited feelings of a lack of "ease". The unsuitable location of housing raised feelings of discomfort and fostered an inability to return home. The lack of proximity to pre-disaster homes and environments can result in disconnect from IDPs' pre-disaster livelihoods and promote protracted displacement: a situation of displacement vulnerability.

Inappropriate site location, along with inappropriate built form, are barriers for IDPs to recover a sense of normalcy and community, return to pre-disaster activities, and return to their pre-disaster home-towns and cities. One of the key purposes of temporary housing is for displaced persons to be able to return to a sense of normalcy while in post-disaster housing (Quarentelli, 1995; Peacock et al, 2018). Temporary housing environments should foster a sense of normalcy in terms of family living, privacy, and safety (Felix et al., 2013, p.136). Also, temporary built environments should also foster a sense of community through the development of communal places and spaces (Felix et al., 2013, p. 140; Johnson, 2007, p. 435). In Johnson's section titled "Social networks: enable occupants to maintain pre-disaster social ties or develop new

facilities, such as shopping centers, recreation centers, (4) large distance from the new location to previous activities (job, university, and previous private property); and (5) concern about private property." (2016, p.1).

ones”, she mentions that housing is not just a roof over people’s heads. Temporary housing should facilitate institutional or informal spaces and places for social activities in order for people to develop new social ties and to feel supported by others (2007, p. 454). However, Johnson highlights that post-disaster temporary housing is commonly built without consideration of the holistic needs of vulnerable populations. Significantly, built form and function should be designed in ways that promote a sense of ease, normalcy, and community, as well as maintain place-based connections and an ability to move towards recovery. Displacement vulnerability can manifest as the inability to return to a pre-disaster place of residence and a sense of discomfort or unease due to inappropriate post-disaster temporary housing. In my analysis of research findings, I analyze how community resiliency was fostered through social resources such as sense of community, place attachment, and social supports in post-disaster temporary housing.

2.2.4. Adhoc Planning

The OHCHR (2019) states that not one organization, nor agency, is responsible for the sole protection of IDPs. They do state that government bodies should take on a vital role in the protection of and assistance to IDPs. Governments, in partnership with organizations and agencies, are mandated to collaboratively work together to address the needs of displaced persons after a disturbance. Yet, collaborative work is not easy after a sudden disturbance to a whole community. For example, Tacoli (2009) discusses how displaced persons are seen as a problem in the eyes of policy makers and planners because, most often, there is difficulty accommodating displaced persons after a disaster. In alignment with Tacoli, I contend that IDPs themselves are not the problem; it is the lack of strategic planning for post-disaster temporary housing. Upon review of post-disaster temporary housing and displacement literature, many scholars critique the implementation of post-disaster temporary housing because this type of housing is typically planned through adhoc procedures (Johnson, 2007). In this section, I provide examples of post-disaster temporary housing challenges as the result of adhoc planning in the aftermath of a disaster. I contend that the following accounts of adhoc planning can result in exacerbating displacement vulnerability. Policy makers and urban planners should collaboratively plan and implement the provision of post-disaster temporary housing.

Many scholars have discussed the root cause of inefficiencies and inadequacies of post-disaster temporary housing as a planning issue (Berke and Campanella, 2006; Comerio, 2014; Esnard & Sapat, 2018; Johnson, 2007; Johnson, 2012; Peacock et al, 2018). Widely cited challenges are: timely provision of post-disaster temporary housing, government capacity at various scales to plan temporary housing, funding preparedness and augmented financial expenditure on temporary housing, the preparation of a short to long term post-disaster temporary housing strategy, inappropriate temporary housing design and site location, and inadequate service provision within post-disaster temporary housing. These latter factors can contribute to and complicate experiences of displacement vulnerability for IDPs and hinder recovery. With more collaborative and intentional planning efforts, scholars argue that government agencies could be more effective in terms of addressing challenges, promoting strategic planning, and mitigating displacement vulnerability of IDPs.

Typically, government agencies, along with an array of non-governmental and international agencies, are often in charge of the provision of temporary housing (Comerio, 1998; Johnson 2007; Peacock et al. 2018). In the case of Saddlebrook, a group of multilevel government and diverse non-governmental actors were involved (See Figure 1.1). Johnson (2007) studied various environmental disaster contexts where post-disaster temporary housing planning was needed. In her paper on “Strategic Planning for Post-Disaster Temporary”, Johnson reveals that multi-cooperation of various agencies was required to respond to the housing needs of displaced persons. In the case of the city of Kalamata, Greece, after the 1986 earthquake, Johnson reveals that institutional actors had little pre-planning experience, a lack of interagency and intergovernmental collaboration before the disaster struck, and a lack of disaster management experience. These latter factors created inefficiencies in terms of institutional actor’s ability to quickly roll out temporary housing units for displaced persons. Adhoc planning resulted in the untimely provision of temporary housing and, ultimately, inefficiencies in meeting the housing design, service, and site location needs of displaced families and persons.

The case of the province of Friuli, Italy, after the earthquake of 1976, also involved adhoc planning (Johnson, 2007). The lack of strategic planning of temporary housing resulted in inappropriate temporary housing units for displaced persons. Planners had to contract out prefabricated housing from a supplier in Canada which

meant that the temporary housing units were not adapted for the weather conditions in the region. Similarly, Comerio (2014) describes Peng et al.'s case study of the Wenchuan Earthquake in China (2008). When institutional actors had to close down temporary housing provision, they had not planned to: (1) consult IDPs in terms of their permanent housing needs, (2) review building codes, and (3) assess appropriate site locations for resettling IDPs (Comerio, 2014, p. 59). A lack of strategic planning can result in exacerbating an already challenging experience of displacement and vulnerability.

In more recent case studies, Spokane et al. (2012) describes the institutionally planned response to the issue of displacement which involved scattering displaced populations in outlying and long-distance locations from their places of residence after Hurricane Katrina. The lack of consideration of where to house displaced populations resulted in inadequately planned post-disaster housing process which further increased displacement vulnerability in terms of social isolation, disconnect, and a lack of social supports (2012, p. 906). Conclusively, Spokane et al. argues that adhoc planning processes contributed to social vulnerability rather than promote social recovery of IDPs. Adhoc planning can create inefficiencies in the timely and strategic implementation of temporary housing and can further exacerbate vulnerability to: homelessness, inadequate housing, and increasing risk of protracted displacement from pre-disaster homes and communities.

Cox and Perry (2011) comment on the lack of planning from a social and community psychology lens. In two rural villages of British Columbia impacted by wildfire, interviewees and media accounts revealed a lack of understanding of disaster affected populations and their social and psychological needs. Recovery and planning processes focused on economic recovery. While an important dimension, a sole focus on economic recovery detracted from a comprehensive understanding of disaster affected persons needs for psychosocial focused recovery. Similarly, Barrios and Meyer demonstrate how disaster management research has illuminated the tendency of institutional actors to overlook or impede planning processes with a focus on the social, community, and psychological needs of a population (Barrios, 2016, p. 30-31; Meyer, 2018, p.274). Strategic post disaster temporary housing planning processes should take into account the holistic needs of IDPs to mitigate displacement vulnerabilities and promote recovery.

There are many benefits to post-disaster temporary housing. Temporary housing can be a transitional space for displaced persons to regain a sense of normalcy (or new normal) and community as they move toward recovery (Felix et al., 2013; Peacock et al., 2018; Oliver-Smith, 1990). Yet, there is a need for policy makers and planners to understand how to plan and implement post disaster temporary housing in ways that appropriately and effectively accommodate and support displaced persons. Two prominent environmental displacement scholars, Esnard and Sapat (2018) state:

From practical, policy and governance perspectives, the root causes and lingering impacts of population displacement needs to be addressed across all phases of the disaster life cycle to ensure appropriate interventions that can ultimately reduce displacement vulnerability (p. 432).

In agreement with Esnard and Sapat, mitigation of displacement vulnerability must begin within institutional efforts to address displaced persons' needs. I understand that institutional actors, such as policy makers and practitioners, can and should address the needs of displaced persons within and through post-disaster temporary housing. I analyze findings from the case of Saddlebrook in terms of how institutional actors strategically adapted social resources: (1) organizational linkages & cooperation, (2) social services, (3) attachment to place of residence, and (4) a sense of community. Considering that displacement is a common social disturbance after an environmental disaster, I contend that policy makers and planners should strategically plan for post-disaster temporary housing with a lens of vulnerability reduction and recovery. I argue that the latter can be done through a community resiliency framework and an understanding of social resources. Community resiliency frameworks explore how to adapt social resources within and through post-disaster temporary for IDPs.

2.3. A Community Resiliency Framework: Post-Disaster Adaptive Capacity

I have stated that community resiliency is a collective endeavor in which institutional actors can and should contribute to a process of community resiliency for IDPs. In section 2.1, I discussed some theoretical underpinnings of community resiliency theory and the post-disaster housing process. I clarified that post-disaster temporary housing is conceptualized as a last step towards recovery for IDPs. In section 2.2, I reviewed literature that explains how IDPs experience displacement vulnerability and

protracted displacement through and within temporary housing. They commonly experience displacement vulnerabilities, such as (1) collective trauma and psychosocial stress, (2) pre-existing socio-economic disadvantages, (3) inappropriate temporary housing, as well as increased vulnerability as the result of (4) adhoc planning by institutional actors. I apply a community resiliency framework to precisely examine how institutional actors adapt of social resources in order to promote the recovery of displaced persons as opposed to exacerbating displacement vulnerabilities. Through the adaptation of social resources, I understand that post-disaster temporary housing can become a resiliency enhancing mechanism that can promote the recovery of IDPs. Here, I explain the particular community resiliency framework applied to this case study.

“Adaptive capacity” is one of, if not the most, important terms within community resiliency theory (Brown & Westway, 2011: 323). Leading resiliency scholars, such as Adger (2006) and Folke (2006), consider adaptive capacity as a “source of resiliency”. Generally speaking, Folke (2010) describes resilience as the ability of social actors to affect a resiliency process towards recovery. Norris et al. (2008) defines resiliency as:

A process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance.

In the latter sense, community resiliency is understood as a process which involves an end goal: the functioning and adaptation after a disturbance. Community resiliency is operationalized through the concept of “adaptive capacity”; this is an important distinction within my research design. In the context of this research, I analyze how institutional actors are able to successfully adapt resources to accommodate and support IDPs through and within post-disaster temporary housing. In alignment with community resiliency scholars, I understand that community resiliency can be enacted through social actors, namely institutional actors in this case, and their collective adaptive capacity.

Adaptive capacity involves the deployment of varied resources from diverse actors at many scales of society (Magis, 2010, p. 406). Magis, Aldrich & Meyers, and Norris et al., along with other community resiliency scholars, understand community resiliency as the capacity of many actors to deploy, create, and engage with “community capitals” (Aldrich & Meyers, 2016; Magis, 2010, p. 405 – 406; Norris et al, 2008). Ahmed et al. (2004) describes the range of resources involved in the fostering of community

resiliency: material, physical, socio-political, socio-cultural, and psychological resources. From a community resiliency lens, adaptive capacity involves the ability and political will of actors to adapt diverse resources after a disturbance (Keck & Sakdapolrak, 2013; Magis, 2010; Norris et al. 2008). Simply, adaptive capacity is synonymous with the development and presence of resources utilized for the purpose of alleviating stress, crisis, and vulnerability of a population after a disturbance (Norris et al., 2008, p.130). In other words, community resiliency is enacted through adaptive capacity of diverse actors who collectively pool together resources and adapt them in the face disturbance. I ask the question “how did institutional actors foster community resiliency...” in order to reveal findings pertaining to the adaptation of resources for a disaster affected, displaced population from High River after the Highwood flood of 2013. Most specifically, my research focuses on how institutional actors collectively pooled “social resources”, also known as “social capital”, within a post-disaster housing environment for displaced persons.

Social capital is not a new concept. Louis Hanifan’s (1916) began with a definition of social relationships based on mutuality and good will (Aldrich & Meyers, 2015, p. 256). Later, Bourdieu (1985) illuminated four categories of capital; social capital is one type of capital (the other three are economic, cultural, and symbolic). Social capital is often referred to as:

The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition (Bourdieu, 1986: 248).

A key dimension of social capital is the real and imagined construction of resources developed through a network of social actors (Aldrich & Meyer, 2015). The concept of social capital has been applied within community resiliency theory (Aldrich & Meyer, 2015, p. 255; Cox & Perry, 2011, p. 396). In Aldrich and Meyer’s (2015) work on “Social Capital and Community Resiliency”, they argue that social capital is one of the most important contributors to community resiliency. Aldrich and Meyer call for further research on how adaptations of social capital can foster community resiliency in the midst of sudden disturbance (2015, p. 258). In post-disaster contexts, social capital becomes adapted for the in ways to “resist, absorb, accommodate to and recover” from disturbances (Aldrich & Meyers, 2015, p. 258; Norris et al, 2008, p. 136; UNISDR, 2012,

p. 3). According to community resiliency theory, social capital/resources are a key resiliency mechanism.

In this chapter, I discuss the importance of the concept of “adaptive capacity” and social resources (also conceptualized as social capital) within community resiliency theory. In order to research the collective adaptive capacity of institutional actors, I chose to focus on the institutional adaptations of social resources to accommodate and support displaced persons through and within temporary housing. In the context of my research, I define community resiliency as a collective capacity to adapt social resources in ways that foster the ability to: (1) cope and persist in a situation of protracted displacement and (2) the ability to return home (if desired). In order for IDPs to do the latter, most often they will need a range of social resources. Precisely, I apply Norris et al.’s (2008) popularly cited “Primary Sets of Networked Resources: Economic Development, Social Capital, Information & Communication, and Community Competence”. From Norris et al.’s set of social capital, I examine four dimensions within a community resiliency conceptual framework: (1) organizational linkages, (2) social supports, (3) place attachment, and (4) sense of community.

2.3.1. Organizational Linkages

In sub-section 2.2.4, in conjunction with many examples provided in section 2.2, I described the challenge of adhoc planning. I revealed issues that arose in the planning process such as inadequate roll out of post-disaster temporary housing, lack of short to long-term temporary housing strategies, inadequate temporary housing design, and site locations far distances from IDPs place of residence, along with service provision. A key area of focus within community resiliency scholarship is the need for increasing collaboration and network building. This sub-section describes the concept of “organizational linking” as a foundational social resource for institutional actors to be able to collaboratively adapt other social resources.

Organizational linking, also referred to as “linking social capital”, involves multi-level and multi-actor networks with vertical relationships (e.g. regional to local government) or multi-sector relationships (private to public sector relationships) (Cutter, 2016; Sharifi, 2016). In community resiliency theory, this is similarly called “panarchy”: the notion of multi-level/multi-actor interactions between global, national, regional, local,

and individual actors (Berkes & Ross, 2016, p.188). Aldrich and Meyer provide an example of the 2004 Indian Ocean tsunami to illustrate organizational linking in which local communities were able to access aid due to new connections with national representatives (Aldrich & Meyer, 2015, p. 259). The argument that I develop here is that Saddlebrook involved a new social network of multi-level linkages (local, regional, private, and non-profit agencies) to adapt social resources for displaced persons' recovery.

The notion of community resiliency emerged as a way of describing the adaptive capacity of social actors at various scales to share resources in the aftermath of disasters (Cutter, 2016, p. 110 -111; Sharifi, 2016, p. 644). Goldstein (2012) reflects on community resiliency as enacted through social networks and a community of actors who are willing to learn how to face sudden disturbances together. Mulligan et al. (2016) has criticized resiliency theorists for not acknowledging or operationalizing community resiliency as a "multilayered" endeavor in which multi actor and multi-level organizations are involved in building a community of support and care (2016, p. 350). Brown and Kulig acknowledge that "people in communities are resilient together, not merely in similar ways" (1996, p. 43). Brown and Kulig reveal that community resiliency is a notion of pooling diverse adaptive capacities to become resilient together. Community resiliency is a constructed idea of networks built from a group of diverse actors. In alignment with community resiliency scholars, Saddlebrook is another case study in which diverse actors came together to create a temporary neighbourhood and work towards recovery together (See Figure 1.1). I examine the existence of a heterogeneous group of multilevel and multi-actors who adapted social resources through organizational linkages: a key social resource for post-disaster temporary housing operation.

2.3.2. Institutional Provision of Social Supports

Many scholars argue that IDPs should receive and perceive social support within post-disaster temporary housing to mitigate displacement vulnerabilities and promote recovery (Bell, 2008; Comerio, 1998; Esnard & Sapat, 2014; Kendra et al., 2018; Peacock et al., 2018; Saul, 2014). Meyer highlights that disaster research too often narrowly focuses on the chaos, vulnerability, and inefficiencies of disaster related interventions (2018, p.265-66). Yet, much disaster research on social capital and community resiliency also reveals how social actors create networks of social support

and adapt solution-focused approaches to the issue of displacement. Community resiliency frameworks tend to focus on solutions to mitigate vulnerabilities as opposed to solely focusing on the failures and challenges of post-disaster contexts. Norris et al (2008) notes that, especially in situations of displacement, social supports are a key dimension to mitigate vulnerability (p.135). I focus on how institutional actors adapt social supports (a social resource) in the form of mental health and social services within Saddlebrook.

The GOA's Flood Recovery Plan (2013) mentions the necessary provision of interim housing and more long-term social housing infrastructure for displaced Albertans. Additionally, disaster affected persons are stated to have "access to health and social services" (Alberta Government, 2013b, p.11). Also, the Provincial Emergency Social Services Framework highlights emergency social services provision in the province of Alberta. Social service provision is stated as follows:

Emergency social services" (ESS) is the supports that meet the basic essential needs of individuals, households, and communities affected by emergencies. They are provided as part of response to and recovery from emergencies (Alberta Government, 2016, p. 5).

According to GOA, emergency social services consist of:

- Clothing
- Food and water
- Accommodation/shelter service
- Registration and inquiry
- Personal services
- Family reunification
- Child care
- Transportation
- Pet care
- Multicultural services
- Communications
- Psychosocial supports
- Person recovery planning

In terms of plans referring to the temporary accommodation for displaced persons, the Provincial Emergency Social Services Framework directs local planners to make sure to "consider that they may need to provide ESS" when displaced persons arrive in their jurisdiction and host displaced persons in their community (Alberta Government, 2017, p.13). This regional policy promotes institutional flexibility for institutional local actors to adapt social supports in ways that meet the needs of displaced persons. Notably, this particular document was created after the 2013 Alberta flood. Norris et al. (2008) describes the importance of social supports. I contend that social supports can and should be adapted within temporary housing. I will assess how specifically institutional

actors were able to meet the needs of IDPs through the adaptation of social service-related resources in Saddlebrook.

2.3.3. Place Attachment

When people are displaced after an environmental disaster, they are uprooted from social connections and supports and usually experience a sense of psychosocial disruption, loss of community, and sense of belonging. In sub-section 2.2.3 and 2.2.4, I acknowledge that post-disaster temporary housing has been criticized for inappropriate site location such as the lack of proximity to their pre-disaster towns and cities. As a result, IDPs have been susceptible to social isolation and disconnect from social supports (Erickson, 1976; Saul, 2014). People commonly have strong bonds and ties to their places of residence for a host of environmental, economic, cultural, and social reasons (Norris et al, 2008, p. 139). The latter description is summed up in the notion of “place attachment”: a social resource to be adapted in order to mitigate displacement vulnerability (Berkes & Ross, 2013; Brown and Westway, 2011; Cox and Perry, 2011; Cutter et al, 2008; Magis, 2010; Manzo and Perkins, 2006; Norris et al, 2008).

Environmental migration scholars agree that often displaced persons will want to return to their place of residence to avoid disruptions to their livelihoods (Findlay, 2011, p. S50; Fussell et al., 2014, p. 308; McLeman, 2013, p. 94). Campanella explains that IDPs return home because they experience a “pull of place” or “pull factors” (Campanella, 2006, p. 145; Black et al., 2011). In social capital literature, the pull of place phenomenon is called “place attachment” (Norris et al., 2008). In socio-ecological resiliency literature, a similar understanding has arisen in concepts such as “communities of place”: communities attached to locally and geographically bound resources (Cox and Perry, 2011; Cutter et al, 2008; Maida, 2007; Manzo and Perkins, 2006). Correspondingly, from a community resiliency lens, institutional actors should take into account the place attachments of IDPs such as their social networks or locally based assets (e.g. employment, income sources, and homes) (Berkes & Ross, 2013, p. 17; Groen & Polivka, 2010, p. 823; McLeman, 2013, p. 94). The experience of place attachment can be appreciated when listening to the stories of displaced persons: people who have been dislocated from their place of support, networks, and security (economic, social, environmental etc.).

If temporary housing is adapted in ways that allow IDPs to be in close proximity to their place of residence, displaced persons most often will be able to maintain jobs and a source of income, uphold social relationships, and carry out daily or “normal” activities (Maida, 2007; Manzo and Perkins, 2006). Johnson (2007) notes that, if post-disaster temporary housing is located on outlying urban areas, then institutions should provide public transportation from temporary housing units to pre-disaster places of residence. Institutional actors can help accommodate return migration flows and maintain place-based community connections through post-disaster temporary housing site location and other adaptations (e.g. access to public transportation). Strategically planned temporary housing should result in the ability of IDPs to return home and facilitate recovery from an experience of displacement. I assess whether institutional actors adapted post-disaster temporary housing in ways that promoted the opportunity to live close to the pre-disaster town or city and be able to return to pre-disaster activities within the town or city (e.g. jobs, social activities etc.). In sum, I examine how institutional actors adapted temporary housing in ways that considered place attachment: another important social resource within community resiliency literature.

2.3.4. Sense of community

In sub-section 2.2.1, I revealed the collective trauma and psychosocial disturbance commonly embedded in an experience of protracted displacement. I focused on the social grief and loss involved in the experience of becoming uprooted and disconnected from social connections and supports. During a stressful, traumatic, and challenging time after disaster, IDPs need social supports and connections more than ever. Also, in sub-section 2.2.3 and 2.2.4, I described how post-disaster temporary housing design and site location is planned in ways that can further disconnect and isolate IDPs from their community. Also, in section 2.1.2, I touched on the notion of “community”. Sense of community is another social resource that can be drawn upon and adapted within post-disaster temporary housing to mitigate displacement vulnerability and promote social supports for IDPs. In this study, Saddlebrook is conceptualized as a community. I assess how Saddlebrook was a geographically bound site and neighbourhood with a sense of community for a displaced population of 1200.

“Bonding social capital” is developed when people engage in informal and interpersonal connections based on, for example, shared kinship ties or similar values

(Aldrich & Meyers, 2015, p. 258). Bonding can involve familial relationships or friendships which enable access to information, housing, psychosocial support and other forms of social resources before, during, and after a disaster (Hawkins & Maurer, 2010, p.1780). “Bridging social capital” involves social connections which may develop across culture or religion such as relationships with co-workers, neighbours, or future employers (Aldrich & Meyers, 2015, p. 258; Magis, 2010, p. 407). Bridging can involve connections with people who do not share similar values and identities. Cheshire’s argument of “know your neighbours” has promoted the notion that bridging social capital can foster social supports and information sharing during and after a disaster (Cheshire 2015, p.1082). The phrase “know your neighbours” arose out of Cheshire’s Australian case study on North Booval (a suburb of Ipswich, Queensland) affected by residential flooding. Cheshire found that neighbourly relationships and connection are not mutually exclusive from community resilience. The study reveals that neighbours can become a social resource for individuals to cope and persist in the face of an environmental disturbance (2015, p.1095- 96). One, neighbours tended to warn each other when they had relationships before the flood occurred. Second, with already built relationships and connections, neighbours would assist each other in recovery efforts such as cleaning damaged homes and providing other supports (e.g. food, sharing information, etc.). The social resource known as “sense of community” draws on notions of bonding and bridging social capital which can be fostered within temporary housing for displaced persons.

Community resiliency scholars widely discuss the importance of a “sense of community” and “sense of belonging” through social bonding and bridging (Aldrich & Meyer, 2015, p.276; Brown & Westway, 2011, p. 327, Berkes & Ross, 2013, p. 16; Magis, 2010, p. 405). Sense of community is attributed to: a sense of belonging, interpersonal connections, and a sense of shared and common experiences of displacement (Norris et al., 2008, p.139; Meyers, 2018, p.388). Manzo et al. (2008) draws on a wide range of scholars who argue that mutual support amongst displaced persons and institutional actors within housing operations is necessary when the social fabric of an entire community is disrupted after an environmental disaster. Nigg et al. (2006) mentions that social capital, in terms of building social bonds, is a key dimension of mental health recovery in the aftermath of disaster and social disruption. Similarly, Johnson (2007) and Felix et al. (2013) contend that site location and housing design are

important dimensions for fostering a sense of community within post-disaster temporary housing provision. Felix et al. argues that built form and function can foster a “community spirit” and a sense of wellbeing when intentionally planned by institutional actors (2013, p.139). Post-disaster temporary housing should be accompanied with opportunities for IDPs to socialize; they should be able maintain old, and create new, social bonds and bridges (Felix et al., 2013, p.140; Johnson, 2007, p. 454). I examine how Saddlebrook was a place and space that provided opportunities for a sense of community, through bridging and bonding social resources, to advance the ability to cope and persist towards recovery.

Significantly, resiliency theory is the “science of surprise” (Folke, 2006, p. 255). Disasters induce sudden social loss, upheaval, and vulnerability for whole urban populations. The sudden displacement of urban populations due to unexpected environmental related disasters are excellent grounds for case study research on the fostering of community resiliency for displaced persons. In an era of climate change, resiliency has become increasingly of interest to policy makers, practitioners, and researchers who observe sudden environment-related, urban, internal displacement (Tacoli, 2009). Post-disaster temporary housing and environmental displacement scholarship has widely documented how institutional actors deploy diverse resources in order to respond to sudden displacement. I situate my research within an analysis of how institutional actors fostered community resiliency for IDPs while they were accommodated and supported in the Saddlebrook Temporary Neighbourhood after the Highwood flood of 2013. With the intention to contribute to community resiliency discourse, and as a social researcher, I chose to concentrate on the collective institutional capacity to adapt social resources in a case study on post-disaster temporary housing for IDPs. I focus on the adaptation of social resources: organizational linkages, social supports, place attachment, and sense of community.

Chapter 3. Case Study Methodology

My research design utilizes qualitative and mixed-method approach to examine a case study of how government and non-government actors planned and implemented post-disaster temporary social housing as well as fostered community resiliency for displaced persons from the Town of High River. I applied two data collection methods: a primary document review and semi-structured, one-on-one, voluntary interviews.

3.1. Site of Research

The research is a multisite research study. After ORE approval on March 7, 2018, I began recruiting participants from the Town of High River, the City of Calgary and Edmonton (See Table 3.1 & 3.2). I traveled to interview participants in the City of Edmonton and, on three occasions, I interviewed participants in the Town of High River and City of Calgary. I also conducted interviews remotely over the phone.

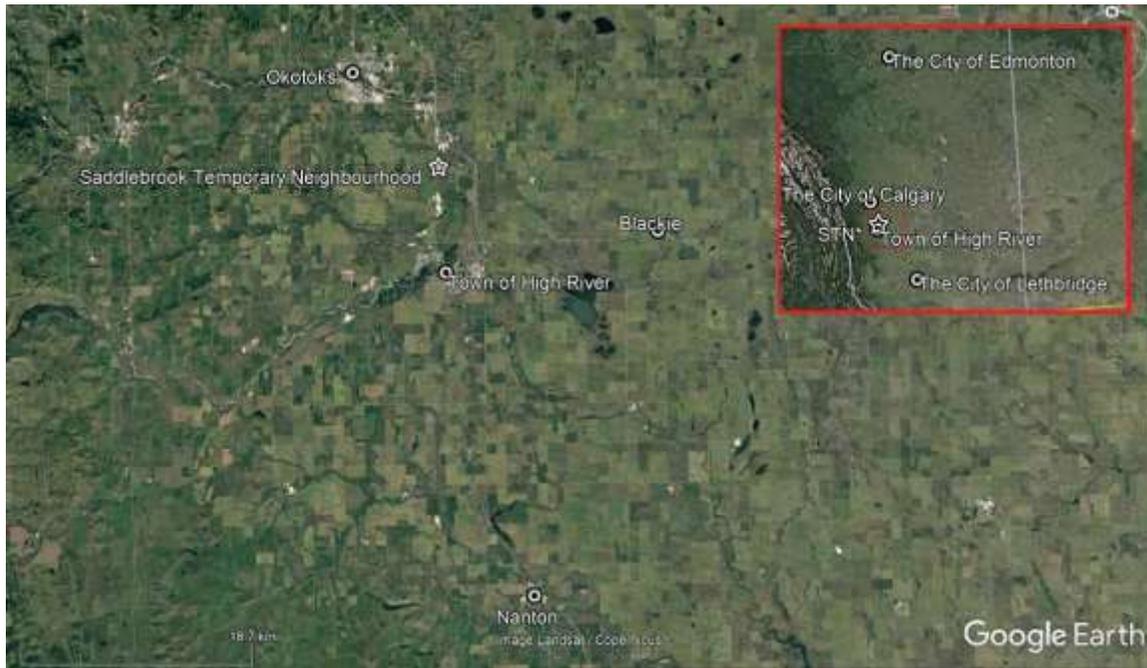


Figure 3.1. Site of research

3.2. Case Study Rationale

Precise numbers of displaced persons from towns and cities are unavailable and unreliable (IDMC, 2016; 2018; 2019a). The scope and scale of displacement is a challenge for researchers; they have limited capacity to collect data sets and monitor diverse migratory patterns of urban populations displaced within regions (Black et al., 2011; Findlay 2011; McLeman 2014). Knowing the challenge of researching the spatial movements of displaced persons from High River, my research focused on the experiences of IDPs within a specific site location: the Saddlebrook Temporary Neighbourhood. I also narrowed my case study focus to an analysis of post-disaster temporary housing provision because this particular type of post-disaster housing is conceptualized and empirically observed as a last and important stage. In stage 3, displaced persons should be able to finally move towards recovery (stage 4) after a long and drawn out experience of displacement (See Figure 1.1) (Peacock et al., 2018).

I selected the Town of High River as a case study site based on the following criteria:

- Percentage of housing damage compared to other flood-affected Albertan urban areas
- Number of displaced persons housed at an NTN in close proximity to a town or city

Given a review of post-disaster housing literature, I held the hypothesis that the largest percentage of housing damage to an urban area tends to be correlated with a large number of displaced persons (Comerio, 1998; Peacock et al., 2018). Given this rationale, I was left to choose from two possible urban case studies: The City of Calgary or the Town of High River. 50% of High River's housing stock was severely impacted (See Table 1.3). Documentation suggests that Calgary homes damaged or deemed uninhabitable were comprised of a total of approximately 2000 residential homes (.4% of private dwellings) in 15 neighbourhoods (Cryderman, 2014). Therefore, flood damaged homes were disproportionately affected in High River compared to Calgary.

Considering there is a lack of reliable and available data on the number of residents who were displaced from urban areas after the flood of 2013, I began to analyze news articles to assess number of displaced persons housed at an NTN in close

proximity to High River and Calgary. I noticed that the town of High River was called “the province’s hardest hit community” in which I continued to hold the hypothesis that High River residents were disproportionately displaced (Senger, 2013). I reviewed grey literature which documented the number of displaced persons housed at NTN. I analyzed news articles pertaining to the “Great Plains Temporary Neighbourhood” (GPTN) built on industrial land and in the outskirts of the city of Calgary. A total of approximately 70 families were reported to be housed at the GPTN during the month of January 2014 (CBC News, 2014, High River Online, 2014). Later, I interviewed two City of Calgary planners involved in construction of the GPTN. They corroborated that the GPTN housed a small population of IDPs. At a similar point in time (January 2014), approximately 400 – 500 displaced persons were accommodated at Saddlebrook (See Table 1.4). Interviewees who implemented the Saddlebrook neighbourhood corroborated the latter information as well. Conclusively, the GPTN had low numbers of displaced populations compared to Saddlebrook. Saddlebrook had the highest uptake of displaced persons. That said, there is potential for a comparative case study on the institutional planning challenges and success of the GPTN and Saddlebrook. However, a comparative study was beyond the scope of my M. Urb thesis. I chose to focus on the case of the disaster affected, displaced residents from the Town of High River because there were more people accommodated in Saddlebrook than at the GPTN. Notably, Saddlebrook was strategically located (9.2km north) in close proximity to High River.

3.3. Primary Document Review

I began my research with a document review to improve my current understanding of the particular case of High River and the provision of temporary housing for displaced persons. I accessed publicly available documents, including unpublished and published reports, policies, planning materials and other documents, such as intake forms and images relating to the provision of post-disaster temporary housing for displaced persons after the Southern Alberta flood of 2013. I prioritized analysis of documentation pertaining to the town of High River. I utilized online search engines, such as Google, Google Scholar, SFU library catalogue, and Alberta Government websites to conduct searches. Additionally, some interviewees generously provided me with documentation. I stored all information on my password protected laptop and used memoing to record descriptive and explanatory data concerning the

experience of flooding, displacement and disaster, and the planning and implementation of post-disaster housing for displaced persons after the Highwood River flood of 2013. Memoing was conducted in a research notebook. This allowed me to record thoughts and potential conclusions, especially involving latent content (the meaning and interpretations of data) (Babbie & Benaquisto, 2002; Byrant, 2002; Charmaz, 2014, p. 343). Memoing is an inductive research method which permits social researchers to analyze qualitative data through reflection and writing. I wrote memos according to the themes/categories (e.g. temporary housing or urban disaster) and developed my own interpretations and ideas of data gathered in the research process.

3.4. Semi-Structured Interviews

I applied a semi-structured interview methodology to gather my data (See Appendix B & C) (Babbie & Benaquisto, 2002). Semi-structured interviews provided narrative, descriptive, and explanatory data. These types of interviews guide participants with open-ended questions so interviewees feel free to provide detailed narratives on a particular subject matter or issue (McIntosh & Morse, 2015, p.1). Interviewers should be flexible in terms of being open to hearing diverse and nuanced responses to questions.

I collected qualitative data on the issue of displacement, how government and non-governmental actors planned and implemented a post-disaster temporary social housing, and the accommodation and supports within Saddlebrook. Participants shared their wisdom, experiences, as well as expert and lay knowledge connected to Saddlebrook.

3.5. Participant Selection and Recruitment

I conceptually divided interview participants into two groups of interviewees: Group A and Group B. All interviewees were 19 plus years of age or older. I interviewed a total of 27 participants over a four-month period from April 2018 until August 2018. All participants were provided with a consent form and research information prior to interviews. Participants were not provided with a monetary or material incentive to participate in this study. Interviewees were informed that their participation was voluntary. I recorded interviews on an audio recording device and stored recordings on my password protected laptop.

3.5.1. Group A:

I interviewed a total of 19 Group A participants and asked semi-structured interview questions (See Table 3.1 & Appendix B). Group A is defined as a group of institutional actors, comprised of government and non-governmental actors, involved in the planning and implementation of Saddlebrook. For Group A, I applied a purposive sampling technique to recruit key individuals in policy making and on-the-ground implementation of Saddlebrook in order to gather descriptive and explanatory data in regards to the planning and implementation of Saddlebrook. Purposive sampling is a common technique applied with semi-structured interview methods in order to select interviewees who have specific lay or expert knowledge (McIntosh & Morse, 2015, p.8).

Through primary documentation, explained in sub-section 3.3, I developed a preliminary understanding of the governmental and non-governmental agencies involved in Saddlebrook. I identified participants through referrals and publicly available information located on an agency's or an organization's website. I contacted participants via email or by phone. When contacting participants and after interviews, I applied a snowball sampling technique; I gave interviewees my contact information and email script for them to give to other recommended participants.

Table 3.1. Group A Interviewees

Interviewee	Organization
Mark Hoosein	Government of Alberta
Carmen Molloy	Government of Alberta
Krista Meades	Government of Alberta
Amber Gallant	Government of Alberta
Justin Solamillo	Government of Alberta
Julie Friesen	Government of Alberta
Doug Finamore	Outland
Joel Armitage	Land Services & Housing, City of Calgary
Geoff Kneller	Land Services & Housing, City of Calgary
Shelley Koot	Family & Community Support Services
Arlene Baxendale	Human Impact Services – Town of High River
Doug Munn	Human Impact Services – Town of High River
Lauren Ingalls	Foothills Foundation
Joyce Pederson	Foothills Foundation
Fauna Bews	Hearts & Minds
Susan Lukey	United Church of Canada – High River
David Robertson	United Church of Canada – High River
Interviewee 1	N/A
Interviewee 2	N/A

3.5.2. Group B:

Group B participants do not constitute a statistically representative sample (See Table 3.2). I was able to interview 9 Group B participants. I recruited Group B participants based on two characteristics. First, I carried out interviews with High River residents who were formerly displaced as a result of the flood and mandatory evacuation commencing on June 20, 2013. Second, all participants were accommodated and supported at Saddlebrook. Applying a snowball sampling technique, I was able to begin to identify Group B participants through referrals from Group A participants. After interviewing Group B participants, I asked if they could refer other Group B participants. In the research process, I interviewed two High River residents whose first language is Spanish. I have a professional proficiency in Spanish and conducted interviews in the Spanish language with approval from the ORE. My research questions for Group B are also translated in the Spanish language (See Appendix C: Group B Questions: Spanish Version). In my research design, I made sure to include the perspectives of the people (Group B) who were: impacted by the flood, displaced as a result of the flood, and resided in Saddlebrook.

Table 3.2. Group B Interviewees

<i>High River Residents & Formerly Displaced Persons</i>
Gary Goble
Patricia Palmer
Diane Beaman
Scott Fisk
Elizabeth Acosta
Jerry Shiel
Elizabeth Viguera (Liz)
William Martin (Bill)

In interviews with formerly displaced persons, they expressed that they did not know what was to come when they left High River during the flood. Later, when their homes were deemed code orange and red, formerly displaced persons were uncertain of how long it would take to recover or encounter permanent housing. Due to the uncertain timelines of housing recovery, by early July, the GOA was building Saddlebrook for displaced person from High River. On June, 24, Saddlebrook was open and had available units to accommodate displaced individuals. By August, 8, Saddlebrook had units available for displaced families. Formerly, displaced persons, who stayed at Saddlebrook, shared a common experience of:

- Homes deemed uninhabitable;
- Diverse experiences of loss and damage; and
- Post-disaster temporary housing needs.

Research results suggest that there were commonalities in the experience of displacement and disaster. However, I do not wish to oversimplify the complexity and array of disaster related challenges that each and every displaced person experienced. Every person who was displaced had their unique story of displacement amidst disaster related challenges. Group B participants came from various backgrounds and identities (See Table 3.5).

Interviewees discussed the diversity of social groups from High River. Seniors who were able to live independently, people with special needs, young families, couples, and single individuals all resided at Saddlebrook. Interviewees described that there were social groups from diverse cultural backgrounds. Many interviewees shared that there were many Temporary Foreign Workers from the Philippines and Mexico who worked for Cargill (a meat manufacturing company). Also, a small group of approximately 15 people

from the Eden Valley reserve (an Indigenous community located southwest of Calgary) were housed at Saddlebrook (Foothills Foundation, 2014, p. 1). I was not able to interview Indigenous peoples who were residents from Eden Valley. I also acknowledge that I was not able to interview displaced persons from the large Filipino population at Saddlebrook. Therefore, this case study is not a statistically or socio-culturally representative sample of the Saddlebrook population. I was able to interview displaced persons from a range of social backgrounds which represent a small group of the Saddlebrook population. I was able to interview equal numbers of renters and homeowners and women and men. Lastly, Group B interviewees were displaced persons who had returned to High River once they left Saddlebrook.

3.6. Coding

Through an inductive analysis of qualitative data collected, I analyzed empirical findings to illuminate:

- The emergence of a displaced High River population;
- The institutional response (accommodation and supports) towards displaced persons; and
- Perceptions of institutional responses which fostered community resiliency for displaced persons.

I categorized and systematically analyzed data content from interview records and any applicable data from the document review. I used a coding system (See Table 3.3). I wrote transcriptions of data in a word document. I sorted data by coding the qualitative data according to key themes. The coding helped me understand the emergence of displacement and of the post-disaster temporary housing. Coding also assisted by comparing and contrasting how respondents answered each question from the interview guide. Responses were organized by codes. I was able to count in a word document the number of times a code or sub-code was mentioned through word searches (See Table 3.5). Finally, I saw an emergence of responses which signalled to the importance of fostering of community resiliency within Saddlebrook and began to write my thesis based on these research results.

Table 3.3. Overarching Codes & Sub-Codes

Overarching Codes	Sub-Codes	
Institutional Actors	Government	Non-Profit
	Non-Governmental	Network
Post-disaster Temporary Housing	Housing	Temporary
	Home	Shelter
	Place	Space
	Accommodation	Service
	Environment	
Displacement Process	Leave	Stay
	Move	Return
	Displaced	Recover/y
Disaster	Impact	Housing
	Loss	Home
	Damage	Flood
	Destruction/Destroy	Hard/Difficult/Challenge
	Disruption/disrupt	Everything
	Trauma	Social Fabric
	Environment	Space
Support	Friend	Family
	Social	Care
	Community	Culture
	Financial	Psychological
	Share/ing	Together
Resiliency	Cope	Move on/move forward
	Adapt	To continue
	Learn	Resources

Table 3.4. Codes referenced 30 or more times by Interviewees

Codes	N =
Home + House	179
Housing	121
Community	111
Flood	106
Move	80
Hard + Difficult + Challenge	76
Recover	70
Place	66
Social	65
Support	65
Stay	61
Disaster	50
Friend	49
Loss of Everything	43
Care	34
Trauma	32

Table 3.5. Saddlebrook Demographics

Social demographics of Displaced Persons perceived by interviewees	Formerly displaced persons interviewed
Temporary Foreign Workers (TFWs) Young families Single women & men Seniors People with special needs Indigenous peoples Homeowners Renters	2 had partners who were TFWs 4 families (3 young families and 1 female headed household) 4 single persons (1 woman and 3 men) 1 self-identified senior 1 self-identified mobility issues 4 homeowners 4 renters

Chapter 4.

Data Results & Analysis

27 interviewees shared their knowledge on a wide range of topics in regards to urban flooding, displacement, and post-disaster temporary housing. Sharing the data gathered from interviews and primary documentation, first, I describe the emergence of a displaced population from the town of High River. I provide an analysis of the first step that displaced persons took into a process of displacement. Second, I describe data results pertaining to the disaster impacts on displaced persons from the Town of High River. Namely, I describe key impacts on infrastructure and housing and other related dimensions of loss and damage. The first two focus areas begin to describe the phenomenon of displacement as a process and the issue of protracted displacement that led to institutional actors responding in the form of post-disaster temporary housing. Third, I focus on the collective capacity of institutional actors to adapt social resources: (1) organizational linkages and cooperation, (2) place attachment (3) sense of community, and (4) institutional social supports.

4.1. Displacement & Urban Disaster

In this section of research findings, I share narratives which explain the emergence of High River residents who became displaced from High River. I describe the experience of loss and damage, coupled with an experience of protracted displacement that ensued in the aftermath of the flood. I also focus on urban housing damage in conjunction with a summary of findings pertaining to the loss of and damage to “everything”. Similar to Erikson’s findings (1976), interviewees described the loss and damage to “everything” in which the whole community of High River was impacted in diverse and profound ways.⁹ I understand that the lived experience of environmental

⁹ Erikson is the author of foundational qualitative research on collective trauma and community psychosocial stress in: *Everything in its path: Destruction of community in the Buffalo Creek flood*. New York, NY, USA: Simon & Schuster

related displacement is interwoven with an experience of disturbance to the social fabric: a multidimensional and community experience of loss and damage to social resources.

4.1.1. The Sudden Loss of High River Residents

Interviewees described the day of the flood and highlighted their migration journey out of High River as a result of sudden and severe flooding. As well, mandatory evacuation orders drove residents to leave their homes. In areas where flooding was severe, 600 residents were rescued by helicopters from the rooftops of their homes (Government of Canada, 2015, p.4). Residents were evacuated by trucks, cars, and by military airlift planes. In alignment with environmental migration and scholarship, I understand that persons who have few or no options to stay in their place of residence due to an environmental event are displaced persons. The following narratives are important to understanding the sudden loss of the urban social fabric and the emergence of a displaced population from the Town of High River.

On June 20th, the day of the flood, Diane saw from inside her church that her car was beginning to flood. In her interview describing the flood, she reflected on the nature of flooding by stating:

It was so fast there was nothing you could do.

Diane speaks to the limited ability to control what was happening to her on the day of the flood. She was forced to leave as quickly as possible due to the rapid onset flooding of the urban environment. The flood was described as a key factor that suddenly uprooted people from High River and a characteristic of environmental and forced migration (McLeman, 2013). In other narratives, emergency workers mandated interviewees to leave their homes immediately. Pat remembers leaving her home and said:

We just left with the clothes on our back.

Similar to Pat, and all Group B participants, Elizabeth had to immediately flee her home and High River. She left her home within minutes of being notified by the police. Elizabeth stated that the police arrived at her door when the majority of High River was already flooded and said:

The armed forces had arrived and firefighters had arrived. But the town was already flooded and we lived in an area where the water hadn't arrived so we didn't believe it. We had many warnings and so we had to leave.

Within minutes to hours, all interviewees, like Elizabeth, described the moment when they left their home and urban environment. Environmental migration occurs when an environmental factor affects the ability of a population to cope, adapt, and persist in their usual place of residence (McLeman, 2013). The narratives of interviewees fleeing High River describe an initial case of environmental migration: a first step into a process of displacement. In many cases of environmental migration and displacement, migration is a coping mechanism in the face of sudden environmental related urban disaster (Black et al., 2011, p. 413; Findlay, 2011, p. S54; Tacoli, 2009, p. 523). The rapid and severe Highwood River flood of 2013, in conjunction with mandatory evacuation orders, forced the whole town of High River to leave their homes and urban environment.

The displacement of High River residents had significant social implications in the post-disaster context. For example, interviewees described their experience of being absent from High River. Those who were only displaced briefly, expressed their concern for those who were displaced for prolonged periods of time and felt their absence in the form of a loss of the social fabric of High River. Susan Lukey and David Robertson, two local High River residents, commented that people abruptly left High River and some residents never returned.¹⁰ David described the sudden displacement connected to the flood:

They were taken out in a helicopter basket and gone.

Susan also mentioned the loss of the social fabric in the following way:

You just lift everybody out of town and scatter them... And you don't realize how much you relate to people in the place you are living until you're all lifted up and scattered.

Similarly, many interviewees expressed that they did not know where their friends, family members, and community members were located during, and shortly after, the flood. Some people never returned to High River. Others eventually returned but it took months to a year for hundreds to return. In the aftermath of the flood, Diane profoundly stated:

¹⁰ Given the scope of my M.Urb research, I did not focus on the population that was not able to return to High River. This is a gap in my research and area for further exploration and research.

The fabric of society is gone.

Another dimension of social fabric disintegration was the post-disaster stress that ensued for families and other social relationships within the experience of displacement. Interviewees described sudden damage and loss of relationships after the flood. From a sociological perspective, Drabek (2003), Erikson (1976), Rodriguez et al. (2018), and Saul (2014) reveal how disasters are social disruptions involving population displacement and loss and damage to the social fabric of towns, cities, and regions. Interviewees described their experiences of rapid and sudden flooding as a social disruption, along with the multifaceted dimensions of loss and damage caused by the flood related disaster. These narratives suggest that sudden environmental migration and displacement is a social disruption in the form of sudden loss and erosion of social resources, such as community bonds (e.g. social relationships).

Interviewees narrated their experience of the particular moments when High River residents had to flee due to severe and sudden urban flooding. Within minutes to hours, all interviewees left their home and urban environment. They described their lack of agency and options to stay in High River and, subsequently, migrated due to flood hazards and mandatory evacuation. A main theme within environmental migration literature is the lack of agency and the nature of force or obligation in population movements due to environmental events (Esnard & Sapat, 2014; Esnard & Sapat 2018; McLeman, 2013). In this section, I have portrayed the emergence of a displaced population from the Town of High River due to rapid onset and severe flooding, with the added dimension of a mandatory evacuation order. Interviewees described how they left with only the clothes on their backs as they watched their cars and homes become submerged in floodwater. This was the onset of an experience of protracted displacement due to the loss and damage of urban housing.

4.1.2. Urban Housing Damage & Loss

“Housing” (129x), in addition to “home” and “house” (179x), was mentioned a total of 300 times in the qualitative data that I gathered. All interviewees who were formerly displaced, and seven interviewees from non-governmental and government agencies, discussed the infrastructural damage and described the urban disaster after the flood. For example, Gary put it frankly:

The disaster was buildings in water.

Approximately 70% of buildings were directly damaged by flooding (Town of High River, 2014, p. 10). Two interviewees described High River as if it had been bombarded, like a “war zone,” because of the severity of destruction. Corroborating interviewees’ statements, I analyzed images and maps of the extent of the flood. Many interviewees and primary documents reveal specific damage to buildings such as businesses, schools, the town hospital, churches, the post office, not-for-profit and social service buildings, grocery stores, and seniors’ residences (Town of High River, 2014, p. 5). David Robertson, a High River resident and United Church Minister, especially highlighted the lack of functioning of services due to infrastructural damage. David said that High River had “shells of buildings”. He was of the view that:

The disaster...is playing a huge part in kind of dismembering the whole infrastructure... so no one could function normally... because it was completely up-ended. And if we think of that happening in terms of all fronts.

This loss of “everything” is a narrative often repeated within the interviews. David also speaks to the fact that the loss and significant damage to infrastructure translated into a lack of capacity to function as a town and community. Damage to the built environment, the lack of functioning of services, and various issues of post-disaster hazards, meant that people were not allowed back into High River from June 20 – 29 (GC, 2015: 33; Senger, 2013). For a minimum of 9 days, approximately 13, 000 High River residents were temporarily displaced from their homes (See Figure 1.1: Stage 2).¹¹ Urban disaster is typically described in terms of loss and damage to the physical environment such as disaster impacts to housing. In acknowledgement of the physical damage, the disaster impacts also involved a social disruption: the displacement of High River residents. In this section of findings, I specifically focus on the urban housing damage and loss in conjunction with an experience of displacement.

After the flood, three interviewees acknowledged that many displaced persons faced the challenge of not knowing the extent of the damage to their homes and belongings. They described aerial views of High River from media releases which gave them an awareness of the damage to the built environment. Interviewees spoke of the

¹¹ A report by the Government of Canada states that approximately 300 people “refused” to leave the town (Government of Canada, 2015, p. 47).

sense of uncertainty as to the nature of damage to their own homes. In early July, residents were able to return to High River to view their town, neighbourhood, and homes (Government of Canada, 2015, p. 33). Slowly, residents could re-enter and inhabit their homes that were considered code green or yellow. However, all eight interviewees had homes and rental properties deemed uninhabitable (See Table 1.1, 1.2, & 1.3). Displacement is not mutually exclusive of urban housing damage and loss. In fact, displacement is a result of housing loss and damage (Comerio, 1998). Compared to High River residents who had homes coded green and yellow, I consider the eight interviewees, along with hundreds of others who were unable to return to High River and were housed in Saddlebrook, as individuals experiencing a form of protracted displacement. They were displaced for months to a year compared to other High River residents who could return home shortly after the flood.

Interviewees mentioned the loss of “everything” in interviews forty-three times. Given the research scope, I summarize these findings knowing that I am not able to do justice to the rich detail pertaining to the loss of everything, along with the expressed feelings of sadness and grief. Elizabeth described the sudden loss in her own words:

Many families lived through difficult times. ..When we began to enter the town, people cried because of their things, for their memories, for their pictures....Very sad...They saw the way their house was left...You had your own experiences and also saw your neighbor’s (experiences), your friend, and the whole world (town of High River). For everyone, it was hard.

Elizabeth highlights the experience of disaster and displacement. People not only lost their homes but most people described the loss of everything in terms of all their belongings associated with sentimental meaning. Interviewees described how basements were flooded where they stored precious family belongings. Bill, a renter, said:

I lived in a basement...I had nothing left.

While he elaborated later in his interview:

It’s still stressful when you look back at it because I have lost stuff that I can’t recover. Stuff that my kids made. Can’t get that stuff back.

Sentimental belongings had to be thrown out and this caused additional emotional distress along with the experience of having their homes damaged or destroyed. Diane mentioned, when she was allowed back into High River to view her destroyed home, that

“nothing was retrievable”. In her case, the mold in her apartment was so significant that she had to throw out all her belongings as her home was deemed code red. Throughout interviewees’ narratives, urban housing damage was coupled with emotions of grief, sadness, and the experience of severe stress from “the whole community” affected by disaster.

Susan succinctly describes how disaster affected everyone because of the magnitude of material and non-material loss. She states:

The whole social net, the fabric of the community, has been torn apart....
How do you start rebuilding? You had a whole community that’s traumatized.

Susan speaks to the level of damage that encapsulated every social group in High River. She states that the “whole community” experienced collective trauma as a consequence of displacement and the damage to the social fabric of the town. Research findings reveal that there was a significant psychosocial impact due to the loss of life, loss of material belongings, loss and damage to housing, and, in conjunction with the latter, an experience of protracted displacement. These data results are in alignment with Saul’s (2014) research on “Collective Trauma, Collective Healing: Promoting Community Resilience in the Aftermath of Disaster”. Saul argues that disasters are more often collective experiences of whole populations simultaneously and suddenly being traumatized and distressed due to social, cultural, environmental, economic and physical disturbance in their lives. Leading displacement scholars, Esnard and Sapat (2014), conceptualize the loss and damage experienced by displaced persons as displacement vulnerability. Research findings echo the literature on displacement vulnerability and collective trauma.

In sum, narratives from interviews revealed that displacement from the town of High River was coupled with the challenge of coping with the multidimensional nature of (1) housing loss and damage, (2) collective trauma, and (3) loss and damage to the social fabric. The psychosocial dimensions of loss and damage are a salient theme throughout interviewee narratives which accompany an experience of displacement and vulnerability (Esnard & Sapat 2014). Out of widespread recognition that disaster-affected displaced persons experience displacement vulnerabilities (e.g. experiences of trauma, loss of material wealth etc.), I have created a case study and research question to understand how institutional actors can accommodate and support displaced persons

move towards recovery. In the following section, interviewees describe the time when they also realized that High River residents would need post-disaster temporary housing as a result of urban housing damage and loss.

4.2. Adaptive Capacity of Social Resources

I provide data results pertaining to the emergence of a displaced population and the experiences of sudden loss and damage. In this section, I illuminate how institutional actors fostered community resiliency through the adaptation of social resources. First, I examine organizational linkages and cooperation to address the phenomenon of sudden, protracted displacement. Second, I point to research findings that demonstrate how the GOA planned Saddlebrook with an understanding of the role of place attachment and the need for a temporary housing location in close proximity to High River. Third, I discuss the built form and function of Saddlebrook and the fostering of a sense of community. Finally, I discuss how displaced persons received and perceived institutional provided social supports in the form of on-site psychosocial services. Through an analysis of the adaptation of social resources, I reveal that institutional actors collectively adapted these social resources in ways that fostered community resiliency.

4.2.1. Organizational Linkages & Cooperation

During the month of July, High River residents became aware of their protracted displacement and were in need of temporary shelter. They were making multiple moves to temporary shelters, and they were living with the uncertainty of when, or if, they would return to High River. This section will focus on how multi-level actors responded to the issue of protracted displacement by planning post-disaster temporary housing. I explain and describe data results pertaining to how institutional actors developed organizational linkages in order to build a temporary housing operation for displaced persons who needed housing beyond emergency (Stage 1) and temporary shelter (Stage 2) (See Figure 1.1).

Saddlebrook was a multi-actor project. The project management leads involved the GOA's Municipal Affairs & Housing (Regional Level) and Alberta Social Housing Corporation (the GOA's funded and owned non-market housing corporation). Also, the

GOA contracted Outland Camp Operations (also known as “Outland”), a Canadian trailer and food service provider, to build Saddlebrook. The GOA additionally contracted the Foothills Foundation, the local housing management body for the Town of High River and the wider Municipal District of Foothills, to be the landlord agent on behalf of the Alberta Social Housing Corporation. As well, interviewees mentioned that Saddlebrook had social and community support services, which involved:

- The Town of High River’s Human Impact Services (HIS) (Municipal Level);
- Hull Services (Mental Health Services contracted by the GOA from the City of Calgary);
- Family and Community Support Services (FCSS) (the social service agency for the Town of High River); and
- The GOA’s Community Development Unit (Regional Level)

The Town of High River had a minor role in the planning and implementation of Saddlebrook. For example, Interviewee 1 acknowledged that the GOA would not have been able to encounter available tracts of land without the assistance of the Town of High River. The Town of High River was also involved in Saddlebrook through their development of a Human Impact Services (HIS) team after the flood. The HIS team played a role in supporting displaced High River residents in Saddlebrook. The GOA provided the financial backbone (a total of \$65 million) for Saddlebrook, along with human resources (Howell, et al., 2014). The GOA led efforts to accommodate displaced persons. National and/or regional governments, with robust resources and political power, are typically the institutional actors who are responsible to assist and protect displaced persons (Esnard & Sapat, 2014, p. 122; Peacock et al., 2018, p. 583). Many studies on post-disaster temporary housing show that governments are largely responsible for post-disaster temporary housing efforts (Comerio, 1998; Johnson, 2007). However, there is often a range of local, regional, and national, as well as non-governmental and private agencies, involved in post-disaster temporary housing (Felix et al., 2013; Johnson, 2007, p. 435). Similarly, the multi-actor project of Saddlebrook included regional and local government agencies, as well as non-governmental and private agencies.

Saddlebrook created new organizational linkages from different levels of government and an array of local and regional actors. Organizational linkages permit

new social networks to transpire under circumstances where there is a sudden need to share resources under circumstances of disturbance (Berkes & Ross, 2016, p. 188; Magis, 2010, p. 407). In this case study, the multi-actor linkages allowed actors to pool resources and capacities to plan and implement Saddlebrook and respond to the social disturbance of sudden displacement and disaster. Organizational linkages built the institutional infrastructure (a new social network of actors) that permitted the ability to adapt other forms of social resources in order to protect and support displaced persons.

4.2.2. Place Attachment & Site Location

From a socio-ecological lens, urban planners should engage with pre-existing, or potential, social resources after a disaster (Spokane, 2012, p. 892). One key dimension of a social resource is “place attachment” (Cox & Perry, 2011; Cutter, 2008). Environmental migration scholars have demonstrated that displaced persons, who cannot immediately return to their pre-disaster home and environment, will wish to move to nearby areas, or within a region, in order to maintain place attachments (e.g. social support networks) and livelihoods (e.g. employment) (McLeman, 2013; Oliver-Smith, 2010). Displaced persons will strategize to mitigate further disruption to their lives and often carry out short distance and short-term moves to maintain social, economic, cultural, and environmental ties and advance return migration to their places of residence (Black et al., 2011; Tacoli, 2009, p. 523). Many scholars problematize temporary housing when planning endeavors do not accommodate and support the need for disaster affected, displaced persons, to return to their place of residence after a disaster (Campanella, 2006; Black et al., 2011, p. 434; Groen & Polvika, 2010; Tacoli, 2008). Uneven community resiliency processes within post-disaster contexts have been widely shown to disadvantage disaster-affected and socioeconomically vulnerable displaced persons from returning home, such as in the case of Hurricane Katrina (Campanella, 2006; Groen & Polvika, 2010). In the case of High River, the GOA recognized the social resource of place attachment and the need to provide opportunities for displaced persons to live close to their place of residence.

After the flood, the GOA’s amendment of the Alberta Building Code (2006) demonstrates the political will to ensure temporary housing site location in close proximity to “original residences” (GOA, 2013, p.1-2). The Building Code Variance states as follows:

As a result of the extensive damage to buildings and infrastructure, accommodations are urgently needed for the displaced residents close to their original residences (2013, p. 1).

The Code Variance demonstrates that planners were aware that displaced persons would intend to return to High River. Julie Friesen, a GOA- Community Development Officer recognized, as did Carmen Molloy, GOA Project Lead of NTN, that displaced persons were first and foremost “residents of High River”. They recognized that displaced persons most likely would return to High River due to their socioeconomic and place-based connections. Acknowledged by displaced persons and institutional actors, many people would intend to return to their jobs, need to be close to their homes for remediation and clean up, and families wanted their children to return to their elementary school. In addition, interviewees recognized that distance from their homes and town could potentially cause more psychological and social harm in an already socially disruptive situation.

With available land to build trailers within a town or city, displaced persons can reside within their pre-disaster environment. Temporary neighbourhoods built in close proximity to pre-disaster homes facilitates return migration and recovery of the social fabric of an urban environment. Most importantly, the latter permits a variety of benefits for displaced persons such as the ability to maintain employment and social support networks, and facilitates their participation in post-disaster recovery efforts such as remediation of homes (McLeman, 2013, p. 94; Groen & Polivka, 2010, p. 823). However, access to available land is one of the biggest challenges of post-disaster housing in urban contexts (Hosseini, 2016, p. 1; Johnson, 2007, p. 453). The case of High River was no different; there was no land base to build an NTN to accommodate over a thousand displaced persons within the town of High River. Six interviewees discussed the urban issue of land procurement. Interviewee 1 noted that the Town of High River had a role in identifying an appropriate site; the Director of Engineering and Planning Operations, from the Town of High River, was a key player in providing the GOA with a list of potential sites for temporary housing. Interviewee 1 acknowledged that the GOA would not have been able to identify sites without the Town’s assistance in this regard. Mark Hoosein, Project Lead for the Government of Alberta’s coordination of NTN, shared how the GOA and the Town considered various parcels of land within High River. The only suitable option was farmland owned by Trans Canada which was 9.2 km north of High River (See Figure 3.1). Fortunately, Trans Canada leased the 40 hectares of

land to the GOA (Graveland, 2014a). By June 30, land was secured by Municipal Affairs and Housing. Doug Finamore discussed how his company, Outland, went to work within 48 hours of notice to prepare the land (Outland, 2014). On July 24, Saddlebrook began to accommodate displaced persons. The GOA was able to quickly sign a lease and thereby build Saddlebrook in a timely fashion in order to house displaced persons in close proximity to High River.

On the other hand, formerly displaced persons and institutional actors recognized that the location of Saddlebrook was in the middle of a field, in a rural area, and close to a highway. This was not an ideal residential location for a temporary neighbourhood. The location was not in walking distance to urban amenities or services; a common issue in temporary housing provision on outlying tracts of land (Hosseini, 2016; Johnson, 2007). The land leased was the closest available land to High River. Two interviewees mentioned that displaced persons would have been best accommodated in vacant rental units or trailers located in the town of High River, such as in the case of “Katrina Cottages” after Hurricane Katrina (Spokane et al., 2013, p. 903). These latter options were not viable in the case of High River. Interviewees acknowledged that the best solution was to house displaced persons in a NTN environment on an outlying parcel of land. Post-disaster temporary housing and resiliency scholars acknowledge that temporary housing involves trade-offs; temporary housing is usually not a perfect solution to urban disaster-induced displacement (Esnard & Sapat, 2014, p.137). In the case of Saddlebrook, one trade-off was developing the site location on an outlying area of land which was as close as possible to High River.

In order to mitigate social isolation from High River, the GOA also provided transportation for displaced persons. Temporary Foreign Workers (TFWs) who worked at Cargill were taken to work in buses. There was transportation for seniors and High River residents who needed to commute to High River. The provision of free and frequent transportation allowed displaced persons to return and engage in post-disaster recovery of High River even though they were still living outside of High River. The location of temporary housing is known to marginalize and exclude displaced persons from their urban environment (Nigg et al. 2006; Oliver Smith, 1990). Provision of transportation contributed to post-disaster recovery and continued place-based connections for displaced persons.

Pat's reveals her ability to engage in post-disaster recovery when she was staying in Saddlebrook as opposed to previous post-disaster housing arrays such as the GOA's interim housing (See Figure 1: Stage 2):

The worst was us being in Lethbridge because you were so far away. The sense of helplessness and the sense of things being done without you having any sort of control. The loss of control, I think for being in Lethbridge was just, at times, overwhelming because, while we were sitting in Lethbridge helpless to get to High River, things are happening to the house we were living in... Being at Saddlebrook, we were closer and could deal with things everyday... And because you were able to talk to people and share your stories, I think that, that helped... I hope that if they have other towns that are destroyed that they remember this.

Displaced persons were in the midst of cleaning up their homes. Pat discusses how being far away, or displaced, from High River affected her sense of control over the recovery of her home. Being so far away (in interim housing at the University of Lethbridge) was a strain on her son who continued to work in High River after the flood. Lack of proximity to a displaced person's home and urban environment is a common issue in terms of appropriately accommodating displaced persons (Johnson, 2007). Most often displaced persons will want to be in close proximity in order to remediate damaged homes, continue to work, and participate in post-disaster recovery of their community. A key resiliency resource of Saddlebrook was its close proximity to High River. As a result, this NTN facilitated opportunities for displaced persons to stay connected to their jobs and remediate their homes while still in a process of displacement.

Interviewees discussed that Saddlebrook allowed displaced persons to stay in close proximity to their jobs. Therefore, displaced persons were able to maintain job security and income. Diane describes this experience well. She said

I was living in trailer. Working in a trailer... I was a trailer park person.

Diane discusses that she was a "trailer park person" and, therefore, she was able to work and carry on with dimensions of life that existed before the flood such as maintaining employment. She states that she was living in a trailer because Saddlebrook was a trailer-built environment. Many interviewees mentioned that trailers were also located within High River for businesses, churches, and non-profit organizations to continue operations because institutional buildings were damaged as well. Diane describes working in a trailer because her place of work was damaged by the flood.

Many TFWs, who stayed at Saddlebrook, were able to continue to work at Cargill: a local meat packing plant. Others had diverse professions and were able to continue to work as a result of staying close to High River. To some extent, a semi-permanent place to stay permitted displaced persons to adapt and persist in the midst of livelihood disruption. Their return to pre-disaster activities permitted some sense of normalcy, financial security, and participation in a post-disaster recovery process.

Post-disaster temporary housing is usually the last stage (See Figure 1.1: Stage 3) before displaced persons can move into permanent housing (Esnard & Sapat, 2014, p. 121 -122; Quarentilli, 1995). Scholars argue that temporary housing should facilitate the return of displaced populations to their places of residence if possible (Oliver-Smith, 1990; Peacock et al., 2018; Quarentilli, 1995). In the case of High River, institutional actors located temporary housing as close as possible to High River. Local and regional governments cooperated to identify a tract of land in close proximity to High River. Through political will and capacity, the GOA amended the Alberta Building Code and encouraged institutional actors to locate temporary housing in close proximity to original residences. Also, the GOA interviewees revealed that they recognized the social resource of place attachment for IDPs. Through collaborative efforts, institutional actors demonstrated collective capacity to adapt to the place-based needs of displaced persons and situate Saddlebrook as close as possible to High River. However, post-disaster housing is not a perfect solution. The location of temporary housing continued to displace people from High River. The next section reveals how institutional actors developed a built environment, with amenities and services, in order to adapt to the needs of displaced persons within Saddlebrook.

4.2.3. Sense of Community

Temporary housing is a critical housing solution for displaced persons (Comerio, 1998). Saddlebrook was described as not just a place to stay but a place of service and care for displaced persons. Saddlebrook was a social resource in providing housing security for displaced persons. Like many other interviewees, Jerry expressed that he adapted to trailer living with ease. Jerry commented saying:

It was easy. I felt so blessed and fortunate that they were doing this. There was food and a place to stay. I know what it is like to be homeless... on the

streets as a teen. They had health care workers, the food, the community; security, a gym.

Jerry, and most interviewees, spoke about how happy they were to have a place to stay; even though, trailer units felt small and it was not ideal living compared to their homes in High River. Jerry describes his awareness that Saddlebrook offered him and other displaced persons with housing security. Scott referred to his approach to Saddlebrook as “an adventure” while Elizabeth described Saddlebrook as “a great help” (translated from Spanish: “una ayuda grande”). A salient narrative that arose from interviews with formerly displaced persons was that temporary housing provision meant that displaced persons had housing security. Pat said:

If Saddlebrook hadn't existed, and they didn't have any place to put us, I don't know what we would have done. At first, we didn't have a vehicle so we probably would have been camping or [...] we probably had to camp in the little bit of the backyard that didn't get flooded [...] I don't know if we could have made it without Saddlebrook. We could have been homeless. We might have had to move into Calgary. My sons would have had to give up their jobs [...] It is hard to think of how bad off we would have been had we not had Saddlebrook. It's sad to think of. We were incredibly grateful.

Pat's narrative represents interviewees who discussed how the population at Saddlebrook was at risk of homelessness and potential livelihood disruption amidst an already challenging situation. Without Saddlebrook to accommodate them in close proximity to High River, they would have experienced additional disruption and accumulated more experiences of loss; Pat described potential loss of her sons' jobs, which would have had economic implications. Similarly, when I asked Gary what other options he had for housing, he frankly replied,

I had no choice but to stay at Saddlebrook.

Gary's narrative shows a lack of access to other housing options. Pat and Gary reveal that they mitigated risk of homelessness as a result of being able to reside at Saddlebrook. In addition, I consider how institutional actors should accommodate and support displaced persons by fostering a “sense of community” within temporary housing. In the case of Saddlebrook, temporary housing security was an important dimensions of housing provision. I focus on an analysis of how institutional actors fostered a sense of community within post-disaster temporary housing.

I show how institutional actors were able to adapt trailers in order to accommodate families, single persons, and couples. Displaced persons experienced significant mental health challenges, trauma, loss of material possessions, damage to and loss of homes, as well as disconnection from social networks and supports. Temporary housing was commonly understood as a place and space that instilled some sense of normalcy, support, and comfort in response to being uprooted from their place of residence and livelihoods. I discuss how Saddlebrook contributed to a sense of community.

Temporary housing should facilitate opportunities for displaced persons to begin to return to a sense of normalcy and community (Felix et al., 2013, p. 140; Johnson, 2007, p. 454; Oliver Smith, 1990, p. 14; Norris et al, 2008, p. 134). Community resiliency scholars, along with post-disaster temporary housing scholars, discuss that a sense of normalcy and community can foster the ability of displaced persons to cope and persist in the face of disaster. The following narratives reveal how institutional actors and formerly displaced persons experienced Saddlebrook as not only a built environment to foster a sense of normalcy but also a place of community bonding.

The GOA and Outland interviewees shared that Saddlebrook was the first temporary neighbourhood project in which they accommodated over a thousand displaced persons. Five interviewees understood that NTN and trailer camps were, and are, a post-disaster solution to provide temporary housing for displaced persons. Doug Finamore, project lead for Outland, shared the following view:

There was no other option but temporary neighbourhood options. There was nowhere to put them [displaced persons] ... The camp solution is the solution after a disaster.

While not all interviewees identified trailer camps as the only solution, the majority agreed that trailers were the only available solution. Outland and the GOA had the task of providing timely temporary housing in the form of a trailer neighbourhood. The GOA included in their building code variance specification that living conditions should meet the needs of “singles, couples, and families” with the intention of appropriately accommodating “displaced residents” (GOA, 2013, p. 1-2). Family trailers had multiple bedrooms along with a living room. Individual units had a bedroom with a desk and a shared bathroom (Klingbell, 2014). Diane mentioned that Saddlebrook had a trailer for

women only. 215 trailers housed up to 1200 people at a time (CBC News, 2013). Corroborating this number, interviewees described Saddlebrook as trailers “stretching off into infinity” or “a huge complex of trailers”. The emphasis on quantity of trailers is also salient in Diane’s description of Saddlebrook in the following way:

It was a little city. Trailers labeled by different names. Board walks were wonderful because it kept you above the ground. And, neat and clean and they had food areas.

Diane corroborated the GOA’s and Outland’s accounts of building Saddlebrook in a timely manner (within a month after the flood) in order to rapidly house displaced persons. Diane perceived planning efforts in a positive light; she thought the built form tried to mimic urban form and function with signage, pathways, and place naming of the trailer environment.

Institutional actors also commented on their efforts to meet the needs of an urban displaced population. Joyce Pederson, who was the Property Manager of Saddlebrook, commented that one of the lessons learned was to:

Have whatever it takes (for displaced persons) to lead a normal life.

Similar to Joyce, many institutional actors recognized that they needed to make extra efforts to foster a sense of normalcy and security for displaced persons who had their lives severely disrupted. Yet, given the site location and the trailer-built environment, the effort to offer a complete sense of normalcy was a challenging endeavor. Interviewee 2 described the hard work to respond to the social needs of displaced persons through the creation of a “normal” environment. They stated:

They did so much to try and make people feel at home in what was clearly not an ideal situation.

Correspondingly, the majority of interviewees, who were formerly displaced, uplifted the helpful dimensions of the trailer environment of Saddlebrook. They said that Saddlebrook was “really nice”, “a fancy summer camp”, “a holiday camp”, “a pop-up kind of environment”, and “clean”. In terms of the qualities of their accommodation, the majority of formerly displaced persons felt a sense of comfort, safety and security, hospitality, and care in temporary housing. These latter descriptions corroborate Interviewee 2’s account that planners and the workers at Saddlebrook made efforts to meet the need of displaced persons to feel a sense of normalcy and “home”.

The GOA's Building Code Variance demonstrates an intention to meet the daily needs of displaced persons through amenities and services as follows:

Future development options at these temporary neighbourhoods may also include daycare, entertainment and recreation opportunities.

The Building Code Variance demonstrates a recognition of the social needs in terms of childcare, entertainment, and recreational needs. Also, amenities included a shared laundry facility, three restaurants (Saddlebrook residents could not cook in their own units), security services, recreation and playground areas, housekeeping services, and medical support onsite. Saddlebrook had diverse services and amenities, which were designed to meet the needs of High River residents amidst a situation of protracted displacement. A common disadvantage of temporary housing is its site location where people are unable to readily access urban amenities and services (Johnson, 2007). Saddlebrook was developed in ways that provided some level of comfort and normalcy through the provision of amenities and services.

Interviewees recognized that Saddlebrook was designed with spaces which facilitated recreational, entertainment, educational, and communal living activities as suggested by the GOA's Building Code Variance. For example, outings for children were provided such as ice fishing, crafts, games, and other activities. Elizabeth acknowledged the efforts to help families. She said:

They made sure that children had the best possible time because they organized games and childcare staff to play with the children.

The availability of children's activities helped strengthen the ability of parents to cope and have time to deal with post-disaster recovery of their homes. The stress on parents was mentioned as a factor that affected families. Many parents were having to work and, at the same time, clean up their homes. There were community gatherings such as picnics, barbeques, and celebrations on holidays which helped families cope. Julie Freisen, from the GOA's Community Development Unit, explained the community building approach that they took as institutional actors:

Saddlebrook was treated like a community because it was. And there were community events and community functions. As I say, things for the children and things for the whole family. There was even a little unit (trailer) for social events. Everything was really well done that way... They were not only to themselves but they became part of a community. But as with any

community, if you took a street of people, maybe half (of the displaced persons) were really community minded and some wanted to be left alone. Some needing more supports than others.

Julie explained that institutional actors maintained a community development and supportive approach to building a community within Saddlebrook. Saddlebrook was not just a place to stay; according to interviewees, Saddlebrook was a place where community bonds were developed within a trailer environment. Corroborating Julie's statement, the Saddlebrook Handbook (2013) states:

The Saddlebrook neighbourhood is a family-oriented community providing comfortable, safe medium-term accommodation for High River residents who have been displaced by the floods.

Saddlebrook was not just a place of security and comfort to accommodate and support displaced persons.

Most interviewees, who were displaced, felt that they were thriving in a built environment which fostered social relationship building with old and new friends from High River. For example, Scott said:

I've got very good friends that were formed in Saddlebrook that I'm still friends with today...You saw the same people around. And you would be outside at the playground with the kids talking to people. I'd get home from work at 4 or 5 o'clock and I wouldn't get back into my trailer until half hour or forty-five minutes later because I'd see so many people walking down the boardwalk to our trailer and I'd stop and we'd get talking. My wife would always joke about how long it would take to get to the parking lot from our trailer. So, there was an incredible sense of community. ... Some of that community that was still maintained now.

Scott represents the majority of interviewees who commented on how much they appreciated the social connectedness and communal living that Saddlebrook offered as a close-knit neighbourhood. Scott, amongst all interviewees, mentioned that formerly displaced persons still maintain relationships made at Saddlebrook. Similarly, institutional actors expressed that the close proximity of the trailers to one another also contributed to a sense of community. Scott stated that it took him a while to get to his own trailer because he would encounter people on his way home. Additionally, many people talked about meal time at the dining halls/restaurants, and social activities. For example, Pat hoped that institutional actors remembered that community bonds and networks helped displaced persons cope in the aftermath of disaster. Pat said:

To go back to the peacefulness, and cleanliness really. We lived with mud for so long it was incredible. At Saddlebrook, it was just really nice. I think that it balanced the badness that was happening, that we could see, that we had to deal with... I hope that what they learn from this is that by building one of these camps rather than scattering people because we have friends also that were scattered into hotels in Calgary. And they had an awful time [...] Trying to get back to High River to work [...] It was really difficult. So, like, Saddlebrook, to bring us together, to have the community, to give us a safe place, it was easier for the Town to communicate with us because we were all in a big group... It was easier to arrange for transportation.

Pat shared that it helped her to sit down at meal time with others and talk to people who were also experiencing post-disaster challenges. Similar to Delanty's (2003) and Saul's (2014) notion of community, Pat's narrative reveals community as a shared experience of displacement and challenges.

For the majority of people interviewed, living in close proximity to people and communal spaces promoted community bonding and supports at Saddlebrook.

Interviewee 2 said,

A couple people said that one of the best experiences that they ever had was living in Saddlebrook because all of a sudden there was this built-in community of people and friends that they had never had before. Many people would go buy stuff at the grocery store and then you go home and you're alone in your house. At Saddlebrook, it was hard to be alone because there was so many people in such close proximity. For some people, it was a terrific experience. For some people, it was not a terrific experience because... I think that people were more shy, isolated, introverted... It was tough because it was hard to create your personal space when you had to share it with some many people in such intense quarters.

Interviewee 2 also highlights a sense of a close-knit neighbourhood and relationship building that was not perceived to occur, as frequently, in urban environments. These research findings suggest that there was some sense of belonging and a supportive community as a result of neighbourhood living and the built environment. While Interviewee 2 also highlights that, for some, Saddlebrook was a place and space that was not conducive to privacy and introversion.

The close encounters with people from diverse social, cultural, economic situations was understood by many as an opportunity to make new relationships. Elizabeth said that:

Now, I have Canadian friends that I met from there (Saddlebrook) [...] Now, we have a history with each one, with some Canadians. There we lived with Canadians, Filipinos, and everyone. We had to learn to live with the whole world. With everyone.

There also was a sense of belonging and community amidst cultural differences. Elizabeth noted that she felt, as part of the Mexican community in High River, that Saddlebrook helped her relate to other High River social groups in Saddlebrook. Liz also commented that she became close to a “mothers’ group” of Filipina women in Saddlebrook and they continue to meet in High River. Liz said:

This community (group) was created because every day we lived together. Everyday. We had neighbours who were from the Philippines.

There was bridging social capital developed in Saddlebrook as well (See Chapter 2: Page 42-44 for a description of bridging social capital). Diverse cultural groups were reported to socialize with one another. Pat discussed how she is still close with a family from Egypt because they met in a reception centre, as well as interim housing, and Saddlebrook. Their shared experiences of displacement and movement through a post-disaster temporary housing process fostered friendships amongst people that they wouldn’t have met under “normal” circumstances.

Interviewees described Saddlebrook as a close-knit housing complex where displaced persons were always encountering people which fostered bonding and bridging social capital. On the other hand, Bill did not feel comfortable at Saddlebrook because of the close proximity and social nature of neighbourhood living. Bill told me that Saddlebrook was a stressful experience. He stated:

I’m a private person. I felt that there were too many people [...] It put more stress on me.

There may have been many displaced persons who felt the same way as Bill. He did not like being in close living quarters and community areas. Carmen Molloy summarizes the social dynamic of the Saddlebrook environment:

There was a sense of belonging but then there was also, on the flip side, some isolation and segregation.

For people who were introverted and wanted privacy, such as Bill, it most likely was not an ideal experience. On the other hand, most interviewees, who were displaced, felt that

they were thriving in a built environment which fostered social relationship building with old and new friends from High River.

Along a similar narrative of the challenges of Saddlebrook, temporary living environments do not fully incite a sense of normalcy. In terms of accommodation, there were planning challenges in the first month that Saddlebrook opened. There were solely rows of trailers and a feeling that there was nowhere to go. As Gary stated:

It was in the middle of nowhere.

A common issue in temporary housing provision is the site location. Gary commented that at first, he was bored and felt isolated. Initially, Saddlebrook did not meet his needs for social interaction and activities. After a few months, resources were adapted to provide recreational and entertainment spaces. Bill called Saddlebrook “prison camp”. He did not appreciate the 24-hour security guards and the small quarters. By contrast, five interviewees expressed that this helped them feel safe at Saddlebrook. Also, all interviewees acknowledged that the small room sizes for families and singles were a challenge. As much as planners made efforts to create a sense of normalcy, the trailer environment was still not a pre-disaster home environment.

With the exception of one interviewee, the majority spoke about Saddlebrook accommodation in a positive light. They felt Saddlebrook provided them with some level of normalcy and a sense of community. Berkes and Ross (2012) characterize many elements of community resiliency. They refer to “people and place relationships”, “community infrastructure”, “positive outlook” and “social networks” as key dimensions to building a community that is resilient. The majority of institutional actors and displaced persons alike discussed Saddlebrook as a place and space that helped them cope amidst challenging circumstances through a sense of normalcy and community. Through informal activities or formal institutional organization, community was built at Saddlebrook. A characteristic of displacement and urban loss of housing can involve the loss of social network, supports, and sense of belonging (Esnard & Sapat, 2014). Saddlebrook was a space and place adapted to the need for normalcy and community in the face of protracted displacement.

Saddlebrook’s proximity to High River, along with an intentionally adapted built environment for residential living, provided displaced persons with abilities to create a

sense of normalcy or, in resiliency terms, to adapt to a “new normal” (Norris et al, 2008, p. 132). While at Saddlebrook, many interviewees mentioned that they were cleaning up the mess in their homes. Saddlebrook was a place and space which contributed to displaced persons’ ability to cope and persist in the face of the messiness of a disaster in a literal and figurative sense. Although not an ideal housing environment, the space and place provided housing security, a sense of normalcy, and fostered community bonding. Significantly, the majority of interviewees (7), who were displaced, spoke positively about Saddlebrook and felt that it gave them a sense of protection and care, as well as a sense of “strength” and “adventure”. While a sense of normalcy may have been a challenge to fully manifest in a rural - trailer environment; interviewees recognized the intentions of institutional actors to build community in a hospitable and comfortable environment. Saddlebrook was beyond a place to stay; it was an adapted social resource which fostered a sense of normalcy, community, and housing security for displaced persons.

4.2.4. Institutional Social Supports

All interviewees, institutional actors, and formerly displaced persons, described two key on-site supports for displaced persons in Saddlebrook: mental health supports and social services. I discuss these two key dimensions as social resources adapted to support displaced persons.

Mental Health Supports

Displacement usually involves a “psychosocial status” of vulnerability (Esnard & Sapat, 2014, p. 149). Shock, insomnia, lack of concentration, and psychophysiological reactions are some of the mental health challenges that displaced persons experience in the form of psychosocial vulnerability. Displaced persons acutely experience a sense of social and community loss when they are suddenly separated from family members and their communities for long periods of time (Esnard & Sapat, 2014, p. 151). Widely underestimated and underreported is the damage and loss to social relationships and support systems and the subsequent collective trauma after a disaster (Saul, 2014, p. 1-18). Folten and Drolet (2018) discuss the lived experiences of loss and grief of Albertans after the Alberta Southern flood of 2013. The specific case of High River residents who became displaced was no different. The psychological dimensions of

disaster and displacement were a salient theme throughout interviewees' narratives. Scholars argue for "community resiliency" in order to support displaced persons through highly vulnerable and challenging times towards recovery (Berkes & Ross, 2012; Esnard & Sapat, 2014; Keck & Sakdapolrak, 2013; Saul, 2014; Walsh, 2007).

Many interviewees described the post-disaster trauma and mental health implications that affected displaced persons' ability to cope with daily and disaster related activities. Interviewees who supported displaced persons noticed that people showed signs of the following psychosocial dimensions: lack of concentration, exhaustion, stress, grief, depression, insomnia, difficulty to make decisions, and lack of ability to express emotion. Pat said quite candidly:

I hope that they get people like we had [...] We'd all be crazy by now and we would have ended up overwhelmed.

All interviewees who were displaced described trauma and other psychosocial related issues that they witnessed or directly experienced themselves. Many interviewees described how Saddlebrook was not just a place to live but a place of psychosocial support.

The myriad of stressors, changes, uncertainties, and crises within a post-disaster and displacement process affected the mental health of displaced persons. Some people were described as being in "survival mode" and had difficulty moving through a post-disaster recovery process because they were experiencing many challenging life circumstances. Scott articulated his interpretation of how post-disaster stress and trauma affected displaced persons.

It was very evident in the very early stages, and looking back five years later, I think it is still very evident that it didn't hit people at the same time. So, pretty well everybody had a period of great difficulty and for a lot of those people it was right away. Early on, those first number of months, and that first year, they really struggled. There were some people that were very strong in that first year. Then they kind of hit a wall [...] maybe the next spring or next June it really hit them. And, all of a sudden you have a little bit of panic and anxiety and what not [...] it still hits everybody at different stages, and to different amounts, and in different ways.

Scott succinctly describes that there is not one straightforward way to predict the diversity of psychosocial experiences of disaster. When, how much, and the precise ways in which people experienced the psychosocial stress varied. Scott understood that

there was no way to generalize how displaced persons were coping, adapting, and persisting amid high levels of post-disaster challenges. What was understood amongst all interviewees was that disaster and displacement were highly psychosocially challenging experiences for people. Thus, a key resource for displaced persons is a socially and psychologically supportive environment.

In response to mental health challenges, such as trauma and stress, institutional actors became involved in the accompaniment of displaced persons at Saddlebrook. Lauren Ingalls, Executive Director from the Foothills Foundation, reflected:

The flood and arising circumstances (loss/damage to housing, displacement, job loss/displacement, upheaval, stress from the actual flood, insurance disputes, cleanup and replacement of lost item, helplessness, etc.) directly contributed to the significant rise in mental health issues in the community because of what happened to local residents.

Lauren's statement acknowledges that some displaced persons were dealing with many post-disaster challenges, along with mental health issues. Also, many institutional actors and formerly displaced persons compassionately recognized that many displaced persons who arrived at Saddlebrook were facing pre-disaster challenges (e.g. financial insecurity or pre-existing mental health challenges). Esnard and Sapat (2004) discuss the latter as "pre-disaster vulnerability". Moreover, many displaced persons experienced mental health challenges as a direct result of disaster. Whatever the reason for displaced persons' psychosocial challenges, Hull Service provided an on-site psychotherapeutic presence and accompaniment. All interviewees spoke about Hull Services as a professional and supportive presence in Saddlebrook. Their services were understood to be embedded in a human centred, anti-oppressive, and a trauma-informed approach. Considering that post-disaster stress and trauma affected individuals, families, and social groups in diverse ways, amounts, and at different periods of time, institutional actors were vocal that mental health services were needed on a case by case basis.

David discussed his understanding of resiliency. His statement speaks to the normative stance of community resiliency which values and embraces the community learning and healing that can emerge through experiences of collective trauma in post-disaster contexts (Saul, 2014). He says:

None of us are going to be the people who we were before. We've come through something that has been exceptionally wounding. There is lots of healing to do on all aspects of what it means to be human [...] it's a healing journey. The more awareness we can bring to it (post-disaster trauma) the better. The more we can allow our tears; the more we can allow the emotions to move us because that's truly what leads to resilience in my view.

David speaks to a common misconception in resiliency literature. Some scholars understand resiliency as the ability to resist and persist and move on quickly: to be able to bounce back quickly from disaster (Davoudi, 2012, p. 301-02). David's statement acknowledges that, in order to recover, resiliency must involve the psychosocial dimensions of resiliency. Disaster affected communities must be allowed to be vulnerable, struggle, or experience a sense of breakdown in order to move towards recovery. This is at the heart of discussion of community resiliency. Disaster affected displaced persons and collective groups of displaced persons should not be expected to quickly bounce back in the face of disaster and displacement (Barrios, 2014). That being said, I contend, along with many community resiliency scholars and post-disaster temporary housing scholars, that institutional actors must be able to quickly provide collective adaptive capacity amidst post-disaster trauma and psychosocial stress (Aldrich & Meyers, 2016; Berkes and Ross, 2012; Brown & Westway, 2011; Cox & Perry, 2011; Magis, 2010; Norris et al., 2008). Saul discusses the need for mental health and social supports to address collective trauma and healing processes for disaster affected groups, such as displaced persons (Saul, 2014). More specifically, Esnard and Sapat cite scholars who have commented on the lack of long-term counselling programs for displaced persons which is needed "to promote the overall resilience following displacement" (2014, p. 152). Mental health and psychological supports were a social resource adapted for displaced persons within Saddlebrook.

Social Services

Post-disaster recovery has been widely documented as a long and onerous process due to challenges with disaster assistance programs (Comerio, 1998, p. 24- 29). Saddlebrook provided social services to support many people who were working towards post-disaster recovery of material loss and remediation of their homes. Also, after the flood, Shelly Koot, Director of Family and Community Support Services (FCSS) for the Town of High River, discussed that for the first-time FCSS and other social service providers were supporting a new population of people who were experiencing

homelessness and displacement who normally would not have experienced these issues before the disaster. Displaced persons were also experiencing unemployment and applying for income assistance. Others explained that pre-existing socioeconomic disadvantage contributed to post-disaster stress and worry. For example, Elizabeth describes the precariousness of being an immigrant in Canada and simultaneously displaced. She said:

We do not have residency. We had to be renewing our papers. We were also worried about this so we didn't go without legal papers (immigration) [...] to be able to be in Saddlebrook as well.

Elizabeth, among other interviewees, commonly described many situations of socioeconomic disadvantage before the flood. Fauna Bews, project lead of a local post-disaster recovery program, shared that:

If you had a bit of an issue before the flood, the volume was turned up [...] To have everything in one campus, I know that a lot of people got supports that maybe are available all the time but maybe can't link up to them [...] You just had to leave your house and there it was.

Fauna describes that displaced persons had pre-disaster conditions that were barriers to post-disaster recovery. In Fauna's words, the "volume was turned up" on various pre-disaster vulnerabilities. In other words, post-disaster challenges amplified already challenging circumstances for some residents housed at Saddlebrook. Common in post-disaster literature is that socioeconomic vulnerability is both a condition and a cause of displacement vulnerability (Bolin & Kurtz, 2018, p.188; Campanella, 2006; Elliot & Pais, 2006; Mueller et al., 2011; Zhang & Peacock, 2010). Perceived and received social supports is a social resource for displaced persons who are experiencing displacement vulnerability such as financial stress, poverty, homelessness, trauma and grief, and post-disaster loss and damage.

In response to the host of factors related to socioeconomic disadvantages and post-disaster challenges at Saddlebrook, there was centralized and on-site services to support displaced persons who were disproportionately affected. Many organizations were mentioned for their assistance and support to displaced persons at Saddlebrook. The HIS team provided social services and "wrap around" supports for displaced persons within Saddlebrook. HIS was there to help people navigate and move through a process connecting people to services and supports. Interviewee 2 stated:

Our goal, with the folks in Saddlebrook, was to help people transition home [...] as quickly as possible. We were part 1 of many agencies that just worked collaboratively try and provide a holistic care of those affected by the flood. It was not so much the nuts and bolts and the logistics of how many trailers etc. but about the people inside there. How do we heal this many people? With this many needs and requirements?

Interviewee 2's commentary defines the mandate of social supports related to human impact services. They stated that HIS was about assisting people to cope and move through recovery within Saddlebrook. Interviewee 2 stated:

Some people didn't have as much resiliency as others. Those that struggled, moved slower. We had to allow them that space and time as they were ready and as they could. We walked beside them at whatever pace.

Interviewee 2 described how the ability to cope and persist through recovery wasn't a quick or linear process. HIS was there to accompany people through the challenges and move through a process of recovery at the pace of displaced persons.

Trailers were set up for FCSS, Hull Services, and Health Services (e.g. a paramedic onsite, and dental and health service visits). Referrals were made to services and organized support groups for displaced persons. For example, the disaster recovery process involved significant paperwork as well as organizing the logistics of home remediation and insurance coverage. Institutional actors described the bureaucratic process of post-disaster recovery as a daunting task for many displaced persons. Furthermore, some displaced persons were coping with low concentration due to trauma, stress, and other pre- and post-disaster challenges. To support displaced persons in Saddlebrook, HIS staff would sit with people and make a sketch of their house, account for what they had lost, or assist people to simply fill out DRP paperwork. Displaced persons could get stuck in the bureaucratic process of insurance claims while they were dealing with a range of life circumstances. Social supports were understood as a means to cope and persist in the face of disaster and enable displaced persons to move out of a process of displacement.

Bolin (1982) discusses how displaced families have challenges encountering ways to transition to permanent housing causing significant psychological stress. For this precise reason, in Johnsons' research (2007), she notes that transitional supports are extremely important for displaced persons. She found that people who knew that they

had options to eventually leave temporary housing had lessened psychosocial stress as a result of living in temporary housing. In my research results, institutional actors shared that professionals also assisted individuals and families with their return to their pre-disaster homes or finding new homes in High River. For example, formerly displaced persons and institutional actors recognized the efforts of professionals who sat with people and assisted displaced persons in filling out paper work that triggered trauma related reactions pertaining to flooding and loss and damage. Bell (2008) documents the challenges faced by social workers to meet the needs of displaced persons in the City of Austin who were impacted by Hurricane Katrina. A host of needs were listed such as income, housing, self-care, and mental health and psychological supports. Similarly, my research demonstrated that in-house psychosocial supports funded by Alberta Health Services and contracted out to Hull Services were critical services for displaced persons. Through Hull Services, the HIS Team, and FCSS, interviewees discussed the psychological and social work supports that were required to assist displaced persons. If institutional actors wish to foster community resiliency within temporary housing for displaced populations, the case of High River affirms the need for institutional actors to collectively adapt social support services within temporary housing.

4.3. Resiliency as Moving Forward Down “A Long Road”

In the case of Saddlebrook, community resiliency was fostered by regional and local government, non-governmental organizations, as well as a private company. Interviewees described in detail the scope of institutional supports for displaced persons. Interviewees, who were formerly displaced, discussed the experience of being “cared for”, “nurtured”, “spoiled”, “helped”, “in a community network”, and a “sense of belonging”. Through social resources adapted by institutional actors, displaced persons sensed that they were in a community of care while in temporary housing. This latter narrative ran through all accounts of Saddlebrook. The majority perceived Saddlebrook to be a community of support. These narratives also illuminated that social resources, such as place attachment or social supports, enhanced displaced person’s ability to cope; they were able to “move forward” (persist) amidst crisis, change, and uncertainty. I use the term “moving forward” to quote Jerry. He said:

I knew that I was going to be taken care of. I knew that because I was moving forward.

Jerry speaks to the culture of care that many interviewees described in their accounts of Saddlebrook. Most importantly, Jerry discusses the ability to move forward in terms of eventually leaving Saddlebrook and return to High River. Likewise, Elizabeth said that she was able to “move on” in the following statement:

It was difficult but we had the arms to move on.

Elizabeth’s testimony corroborates what institutional actors claimed: the objective of Saddlebrook was to provide resources in order for people to eventually recover from displacement and disaster. In this context, recovery for displaced persons meant returning to High River (if desired) and finding permanent housing. Interviewee 2 said:

There were some amazing moments of resilience and moments where people shifted and caught sight of different things and pieces. Sometimes I’m just stunned at people’s ability to walk through such a horrible thing with such grace, tenacity, and resilience. Many times, I just felt so honored to have that privilege of walking beside them. Watching this awareness or growth.

Interviewee 2 uses a metaphor of “walking beside people” in a process of learning, awareness, and growth amidst disaster and displacement. Similarly, Interviewee 1 reflected on the challenge to be resilient on a long and hard journey of post-disaster displacement:

How do you build resiliency when you have done that much damage? The journey is so long and so hard.

Interviewee 1 discussed the challenge facing institutional actors, along with displaced persons, to move through a journey that requires a lot of time, resources, and psychological strength. Interviewees 1 and 2 apply similar metaphors of a long and hard journey where they, as institutional actors, had a role to accompany or “walk beside” displaced persons. Institutional actors recognized that there was a need for them to collectively adapt social resources in order to foster community resiliency so that displaced persons could eventually move towards recovery.

Diane also described the journey of formerly displaced persons as “a long road”. In a reflection on present day news of other communities who experience flooding, she empathized and said:

I pretty well know what people are going through right now. You know? God help you... You have a long road.

The emphasis on a “long” journey or road speaks to the notion that community resiliency and post disaster housing is not a mutually exclusive process (Folke, 2010; Norris et al, 2008; Peacock et al., 2018; Quarentilli, 1995). Disaster-affected displaced persons tend to experience significant displacement vulnerabilities such as collective trauma, loss and damage to their homes, social upheaval and loss of their social support networks, along with many other adverse conditions. This case study reveals that the challenge is directed at institutional actors to collectively adapt social resources to support and accommodate displaced persons down a long, hard road to recovery.

From July 2013 to August 2014, Saddlebrook housed approximately 1200 displaced persons. Interviewees were able to return to High River after a few months while others stayed in Saddlebrook until August 2014. I interviewed 2 interviewees, out of 8, who resided at Saddlebrook for a year until it closed down. Subsequently, they were transferred to the new GOA transitional housing called Coal Trail. The last person left Saddlebrook on August 21, 2014 (Foothills Foundation, 2014). Saddlebrook officially closed on August 29, 2014. Those who were in need of low-income housing were resettled in the Coal Trail residence purchased by the GOA. Many people either returned to their pre-disaster remediated homes or to new homes in High River.

Disaster-affected populations, who simultaneously experience prolonged displacement, must be accommodated and supported through the adaptation of social resources within temporary housing. Through these qualitative results, I reveal how institutional actors can foster community resiliency. Moreover, “moving forward” for displaced persons meant a recovery of their livelihoods and their return to High River. In alignment with community resiliency theorists, as well as displacement and post-disaster temporary scholars, I demonstrate that disaster-affected, displaced persons must be accommodated and supported by a collective institutional response which adapts social resources (Aldrich & Meyer, 2015, p. 256). In the case of Saddlebrook, institutional actors fostered community resiliency through an approach that involved “walking beside people” with collective adaptive capacity.

Chapter 5.

Discussion: Community as a Source of Resiliency

The overarching objectives embedded in my research design were two-fold. One, I explained the emergence of a displaced population who experienced sudden displacement and a need for temporary housing after the Highwood River flood. Two, through narratives of eight formerly displaced persons and 19 institutional actors, I described qualitative research results pertaining to the collective adaptive capacity of institutional actors and the fostering of community resiliency within temporary housing. In this study, community was a concept used to describe a group of social actors who share common resources, networks, and develop supportive relationships within a geographical location. In a context of displacement and disaster, community was a source of resiliency. For example, community bonds were fostered between displaced persons and organizational linkages developed through multi-level and multi-actor participation. Organizational linkages particularly laid a foundation for the adaptation of social resources within and through temporary housing. My M. Urb. research reveals four themes pertaining to the adaptation of social resources: “Place-Based Housing: Maintaining Pre-Disaster Community Connections”; “Socially Purposed Infrastructure: Building Community through Temporary Housing”; “A Community of Psychosocial Supports”, and “The Development of a New Social Network with Robust Resources”.

The following discussion engages in a community resiliency analysis of how institutional actors collectively adapted social resources. First, I point to literature and research findings relating to a place-based temporary housing environment which enables the maintenance of diverse community connections with the pre-disaster, urban environment. Second, I examine the importance of temporary housing as a community for displaced persons. Thirdly, I consider how psychosocial services and activities are an integral part of post-disaster temporary housing. Fourth, I discuss the development of new social networks and the necessary deployment of robust resources in a process of post-disaster temporary housing provision. Institutional actors collectively adapted these latter four types of social resources which were embedded within temporary housing. As a result, Saddlebrook became a place of community resiliency for displaced persons.

5.1. Place-Based Housing: Maintaining Pre-Disaster Community Connections

Tacoli (2009) argues that policy makers and practitioners should be well versed in understanding “migration flows” in order to better support displaced persons after an environmental related disaster. Many scholars critique alarmist predictions of mass environmental migration (Gemenne, 2011). These environmental migration and displacement scholars contend that most displaced persons will desire to return to pre-disaster homes and their urban environments after a disaster (Findlay, 2011, p. S50; Fussell et al. 2014, p. 308; McLeman 2013, p. 94). In September, Saddlebrook reached peak capacity (a population of 1200) (See Table 1.4). These findings reveal Findlay’s (2011) first principle of environmental migration as a “pull of place”, “pull factor” or “place attachment”. Displaced persons will tend to have a sense of belonging and ties to locally based assets within an area (Groen & Polivka, 2010, p. 823; McLeman, 2013, p. 94). Due to place-based attachments, most often displaced persons will make short distance and short term moves in the hopes of being able to return as quickly as possible to their pre-disaster place of residence. In order to mitigate displacement vulnerabilities, such as a loss of employment or loss of social support network, displaced persons will try to obtain post-disaster housing within proximity to their pre-disaster place of residence. Return migration patterns after a disaster raise questions and critiques of alarmist predictions of mass migratory movements due to environmental disturbance. Current migration trends and patterns demonstrate that displaced persons will often be attached to their original place of residence and not wish to migrate to other towns and cities. In this case study, similarly, formerly displaced persons had the intention to return to High River and many did so within a year after the Highwood River flood.

The provision of housing in close proximity to pre-disaster homes and urban environments is a tangible and strategic way to support displaced persons and accommodate return migration flows (El-Anwar et al., 2013, p.174; Esnard and Sapat, 2014, p. 138; Felix et al., 2013, p. 137; Johnson, 2007, p. 453). Place-based temporary housing can facilitate opportunities for displaced persons to return to pre-disaster activities (social, economic, cultural, and environmental). For example, many interviewees noted that TFWs, who were housed at Saddlebrook, were readily able to return to work. Diane noted that she was able to continue working while living in a trailer in her cited quote in sub-section 4.2.2. Also, displaced persons are able to engage in

post-disaster recovery activities when in closer proximity to their damaged homes and urban environment. The latter point was corroborated by Pat who discussed how difficult it was for her to be living in interim housing at the University of Lethbridge compared to the experience of those who were housed in Saddlebrook. Also, institutional actors provided public transportation for displaced persons to and from Saddlebrook and High River. Case studies on post-disaster housing often demonstrate a need for the provision of transportation services to and from temporary housing locations when living in outlying areas of towns and cities (Johnson, 2007, p. 453). Whether displaced persons desired to return to High River due to locally based assets (e.g. residential homes) or they needed to maintain social networks and bonds, Saddlebrook's site location was close to High River and permitted the return to High River.

Post-disaster temporary housing scholars are in agreement that site location of temporary housing is one of the most important dimensions of effective provision of post-disaster temporary housing (El-Anwar et al, 2013, p. 174; Esnard and Sapat, 2014, p.138; Felix et al., 2013, p. 137; Johnson, 2007, p. 453). "People-place relationships" is a foundational concept and social resource recognized within community resiliency theory (Berkes and Ross, 2012, p.14; Brown & Westway, 2011, p. 333 – 334; Cox & Perry, 2011; Norris et al., 2008, p. 139). In order to foster community resiliency, policy makers and planners need to understand that the desire to return, due to place-based attachment, is a social resource in post-disaster contexts. If institutional supports facilitate return migration, displaced persons will return to their jobs, remediate homes, recover their livelihoods and participate in post-disaster recovery activities. When displaced persons are able to return home, their displacement vulnerability is mitigated and they are able to move forward in various ways. For this very reason, post-disaster housing scholars argue for the site location of temporary housing for displaced persons to be either (1) embedded within the urban landscape or (2) located in close proximity to the disaster-affected town or city.

From an urban resiliency lens, by locating post-disaster temporary housing in close proximity to the pre-disaster urban environment, planners facilitate the urban recovery of the social fabric, along with economic, cultural, and environmental livelihoods (Campanella, 2006). Return migration is an indicator of an end to the process of displacement and an indicator of recovery for formerly displaced groups. The case of Saddlebrook reveals that institutional actors made efforts to both locate temporary

housing in close proximity to High River and provide transportation to displaced persons. I consider these latter research results as indicators of adaptive capacity and recognition of the social resource of place attachment. Saddlebrook provided a close commute to jobs, school, and post-disaster recovery of homes. In the case of High River, narratives showed that forced migration and displacement created a disturbance in the lives of those displaced because, for example, they were not close to jobs and social connections, and their damaged homes were in need of clean-up. Temporary housing in and of itself becomes a resiliency enhancing mechanism when it fosters the maintenance of pre-disaster community connections. In other words, temporary housing can promote the preservation of social resources (social capital) for displaced persons which can lead to their recovery (Peacock et al. 2018, p. 574; Aldrich & Meyers, 2015). At the same time, and typical of post-disaster temporary housing operations, Saddlebrook was not a perfect solution or ideal situation (Comerio, 1998; Peacock et al. 2018). Displaced persons were socially segregated from their community and continued to be displaced from the town of High River.

5.2. Building Community through Temporary Housing

A common challenge in post-disaster temporary housing is the issue of site location (Johnson, 2007). Most often, planners are unable to encounter available urban land to build temporary housing units. They will locate temporary housing on outlying tracts of land. Saddlebrook is another case study that attests to the imperfect solution that is post-disaster temporary housing (Oliver-Smith, 1995). Displaced persons were socially segregated and continued to be displaced, albeit in close proximity, from the town of High River. In Saddlebrook, interviewees acknowledged that they themselves, or other displaced persons, felt geographically isolated from the town of High River due to the site location and lack of urban services and amenities. One of Saddlebrook's downfalls was the location in terms of placement on outlying rural farm land. While being located on the outskirts of High River, Saddlebrook was not an ideal place for displaced persons to feel a complete sense of normalcy. Most scholars, namely Esnard and Sapat (2018) have argued that post-disaster temporary housing usually involves imperfect solutions. Saddlebrook was not a socially idyllic place and space because it was situated on a rural plot of land which segregated displaced persons from their pre-disaster

community. Therefore, institutional actors recognized that a sense of community needed to be built within Saddlebrook.

Displacement is an experience of loss and damage to social resources such as social networks and supports as well as a sense of stability and normalcy (Barrios, 2014; Cox & Perry, 2011; Erikson, Ritchie, 2012; Saul 2014). In the face of disaster vulnerability (e.g. experiences of trauma, loss, grief, stress, economic insecurity due to displacement), it is of utmost importance for displaced persons to experience a sense of normalcy and psychosocial support within temporary housing. This means that residents of post-disaster temporary housing must be accommodated in ways that support a return to daily ways of life such as income generating activities, cooking, housekeeping, and school, pre-disaster recreational and social activities. For example, temporary housing case study of Turkey involved “mosques, community centres, shops and coffee shops” (Johnson, 2007). Yet, temporary housing is often an imperfect solution and cannot completely mimic urban housing nor an urban community. For example, Saddlebrook had small trailer units that displaced persons acknowledged were not in any way equal in size to their pre-disaster homes. On the other hand, research findings suggested that institutional actors and formerly displaced persons considered Saddlebrook as a newly built community which mitigated social isolation: a key displacement vulnerability.

Communal and public spaces were intended to build bonding and bridging social capital (Aldrich & Meyers, 2015). The built environment had communal spaces within housing units for singles, such as the trailer for women only, and recreational space such as the soccer field. Dining hall areas were not only places for food services; communal dining halls functioned as spaces and places for community building and an informal social supportive environment for displaced persons. Community spaces offered a time to build new, intercultural relationships, share stories and emotions, be supported by others who were experiencing similar struggles, and share information pertaining to disaster recovery. At Saddlebrook, people were not alone in their struggles. Within housing units, on Saddlebrook boardwalks, and in restaurants, displaced persons fomented relationships with each other and with staff. The latter is an indicator of the existence of bonding and bridging social capital.

A key dissatisfaction arose pertaining to the built environment. Saddlebrook was a highly social environment where privacy was limited. This particular dissatisfaction

corroborated positive narratives of Saddlebrook as a community-built environment. The majority of formerly displaced persons appreciated the proximity of trailers and communal areas. They valued the closeness of community spaces and trailer units which allowed people to relate to one another in a setting that facilitated social support and interaction. In one comparison, an interviewee noted that the community living environment was more socially oriented than urban living in High River. Most saliently, a community oriented built environment was a source of resiliency for displaced persons. Research findings suggested that intentional efforts to create communal space, along with temporary units in close proximity to one another, did contribute to the development of bonding and bridging opportunities and alleviated social isolation. However, the alleviation of social isolation presented a challenge to those in the community who would have preferred or needed more personal privacy as they coped with their displacement challenges.

As mentioned in my discussion of “Place-based Housing” (sub-section 5.1), the location of the built environment can cause a sense of social isolation, despair, boredom and other psychosocial experiences that contribute to displacement vulnerability (Bell, 2008; El-Anwar et al., 2016; Spokane et al., 2012) The intention of the built environment should contribute to a sense of social cohesion, connectedness, hope, ability to carry out daily activities in order to mitigate displacement vulnerabilities. Due to research results, corroborated by the literature, it appears that the location of the built environment is usually an imperfect solution, generating both negative and positive experiences for residents of post-disaster housing. The case of the Pruitt-Igoe Houses in St. Louis has been well cited as a failure of urban public housing (Campanella, 2006). Campanella notes that, in Roberts study, residents did not solely speak to the failures of their public housing experience in terms of social stigma, crime, and poor living conditions. Many interviewees highlighted and focused on “sense of community” that they felt amidst socioeconomic vulnerability and marginalization (2006, p.145). Similarly, five years after Saddlebrook, interviewees spoke to the community of care and support in Saddlebrook amid the challenges of displacement vulnerability and temporary living conditions. Saddlebrook was a “community” of new friends and relationships. Community was understood as a source of resiliency within temporary housing. Even with the imperfections of the temporary built form and function, the communal spaces and places were understood to contribute to the enhancement and development of bonding and

bridging social capital. Research results, in alignment with community resiliency and post-disaster temporary housing literature, suggest that institutional actors can foster community resiliency through an understanding of the social needs of displaced persons. Namely, institutional actors created an adapted built form and function that enabled a sense of community: a key social resource for displaced persons.

5.3. A Community of Psychosocial Supports

Human impact services and psychosocial supports for displaced persons is typically under resourced and less prioritized in post-disaster temporary housing provision (Esnard and Sapat, 2014, p. 152). Yet, many scholars have considered psychosocial supports as one of the most important social resources to be provided within temporary housing (Bell, 2008; Berkes & Ross, 2012; Esnard & Sapat, 2014; Kendra et al., 2018; Peacock et al., 2018; Saul, 2014). Psychosocial supports are a third social resource considered within this case study of post-disaster temporary housing. In particular, Saddlebrook involved Hull Services, HIS, as well as FCSS, in supporting displaced persons through psychosocial stress and mental health challenges.

Formerly displaced persons from High River shared emotional stories of material and non-material loss in ways that I was not able to fully disclose given the scope of my research. To summarize, the mental health and psychosocial challenges were induced by experiences of loss and damage to material (e.g. homes, infrastructure, employment, and belongings) and non-material (e.g. loss of social supports, human lives lost, family and marital relationships breakdown, loss of a sense of home, sense of normalcy, and community). Correspondingly, Saul and Esnard and Sapat describe how disasters cause significant psychosocial stress to disaster-affected populations in terms of community disruption, loss of social support systems, social isolation, psychophysiological reactions from disaster related grief and trauma, and many others (Saul, 2014: 1; Esnard and Sapat, 2014: 149). At Saddlebrook, it was understood that many displaced persons experienced familial and marital relationship challenges and breakdown as well as psychosocial disconnect from their pre-disaster community in High River.

Psychosocial recovery after disaster was not a straightforward or linear process. Many institutional actors commented that displaced persons were struggling to find ways to cope with their diverse post-disaster challenges. However, by being in Saddlebrook,

they were in a supportive community, where they could walk into trailers designated to provide social services or psychological services. Some interviewees acknowledged that, for socioeconomically disadvantaged groups at Saddlebrook, there was a holistic care system provided and available at their fingertips. Such an accessible social service system was not available in this particular way before the flood of 2013. Saddlebrook was planned with an intention to provide a community of psychological and social supports for displaced persons. Furthermore, psychosocial supports were perceived to also contribute to displaced persons ability to move forward towards recovery: return to pre-disaster or new homes in High River (if desired). In alignment with disaster psychologists and post-disaster temporary housing scholars, I contend that psychosocial supports must be embedded within post-disaster temporary housing in order to mitigate and address displacement vulnerabilities such as psychosocial stress due to displacement. In recognition of the psychosocial dimensions of disaster and displacement, an intentional community of psychosocial support for displaced persons is also a key social resource to be adapted within temporary housing.

5.4. The Development of a New Social Network with Robust Resources

After the Southern Alberta flood, post-disaster temporary housing efforts were implemented by a wide range of institutional actors. This was the first time in the province's history when institutional actors collaborated and built temporary housing for thousands of displaced Albertans at a regional scale (Alberta Government, 2013). The GOA, along with the various actors, formed partnerships to create a newly developed post-disaster housing network within weeks. New organizational linkages and cooperative partnerships emerged in order to carry out post-disaster temporary housing efforts. Many interviewees mention the challenges of working across different levels of governance, and managing different mandates and budgets. There was difficulty in trying to coordinate a collective plan with local and external actors to support displaced persons. Some interviewees mentioned that it was necessary that the GOA and external agencies were part of temporary housing efforts because local institutional actors' capacity weakened after the flood. In terms of post-disaster temporary housing, the GOA took the lead on post-disaster housing. The experience of planning and implementation involved quick and impromptu decision making. Some interviewees expressed their

recognition that local capacity may have been overlooked given the need to take swift action in the implementation of Saddlebrook. Some shared concerns that the roles and responsibilities were not well defined by disaster management policy and practice. As a result, other studies point to a similar problem where many post disaster temporary housing provisions tend to be planned in this adhoc and impromptu manner (Albunour, 2013; Berke and Campanella, 2006; Bolin et al., 2018; Comerio, 2014; Esnard & Sapat, 2018; Johnson, 2007; Johnson, 2012; Peacock et al, 2018; Sapat et al., 2011). A key lesson learned was to pre-establish policy and procedures and improve local, regional, and national organizational linkages before a disaster occurs. Many institutional actors described that there was learning in terms of how to build relationships and networks with local actors who have local knowledge to integrate within a post-disaster response toward internal displacement.

Community resiliency literature on adaptive capacity has argued for social network building and local agency involvement in disaster processes (Aldrich & Meyers, 2016; Barrios, 2014; Cutter, 2016; Brown & Westway, 2011; Magis, 2010, Keck & Sakdapolrak, 2013). In the case of the multi-actor project of Saddlebrook, there were new partnerships created and developed in what has been described as organizational linking: a key component to collective adaptation of social resources (Aldrich & Meyers, 2016; Magis, 2010, p. 405 – 406; Norris et al, 2008). However, without the inclusion of local municipalities and organizations, the capacity of local actors is not applied or enhanced in these processes. In the aftermath of a disaster, organizational linkages should be made with local actors in order to engage and enhance local social resources (Berkes & Ross, 2012, p.14). In the case of Saddlebrook, more local actors and agencies potentially could have been integrated into the initial process of accommodating and supporting displaced persons from High River.

Saddlebrook became a social and organizational learning experience about how to collectively adapt resources for effective and efficient post-disaster housing provision. I interviewed eight High River residents out of a total of 1200 displaced persons who resided at Saddlebrook. My research presents the meaningful narratives of displaced persons, which reveal the extent to which they experienced Saddlebrook as place and space that protected and cared for them during an experience of protracted displacement. That being said, institutional actors and displaced persons acknowledged various trade-offs, challenges, and lessons learned that arose during the planning and

implementation of Saddlebrook. In interviews with institutional actors, there was acknowledgement of the lack of preparedness of institutional actors. Given the breadth of scholarship on post-disaster temporary housing and community resiliency, the latter narratives of uncertainty, crisis, and unpredictability in planning process is a rather common narrative (Clinton, 2006; Davoudi, 2012: 331; Folke, 2006: 254; Harris et al., 2018: 14; Meerow & Newell. 2016: 4; Vale, 2014: 197). Also, it is a commonly cited occurrence that new social networks develop out of sudden disaster and displacement contexts. In community resiliency theory, disasters are experiences of significant learning and organizational linking opportunities which can address issues faced by whole populations such as the displacement of urban populations (Goldstein, 2012). Finally, robust human and financial resources (\$65 million dollars) were deployed into post-disaster temporary housing for displaced persons. Findings reveal the occurrence of multi-actor organizational linking enabled the pooling of robust resources to address protracted, internal displacement. Saddlebrook is another case on how a multi-actor and multi-level actor network was newly developed in order to collectively adapt social resources: a key indicator of community resiliency.

Chapter 6.

Conclusion

Similar to Alberta's Super Flood, pointed examples of super floods, typhoons, hurricanes, and other extreme weather-related events from around the world have demonstrated significant effects on urban populations. A stark example is the "Super Typhoon" called Typhoon Haiyan, which hit the Philippines on November 7, 2013, impacting 591 municipalities and 57 cities (McPherson et al., 2015, p. 1). A total population of 4 million people comprised of 890,895 families became displaced. Philippine national representative Yeb Sano addressed the United Nations at the COP15 less than a week after Typhoon Haiyan devastated his country:

The picture in the aftermath is ever so slowly coming into clearer focus. The devastation is colossal. And as if this is not enough, another storm is brewing again in the warm waters of the western Pacific. I shudder at the thought of another typhoon hitting the same places where people have not yet even managed to begin standing up. To anyone who continues to deny the reality that is climate change, I dare you to get off your ivory tower and away from the comfort of your armchair... "If not us, then who?"

Mr. Sano's statement is a plea from the Global South for politicians, policy makers, and practitioners to understand that environmental related disasters are a global phenomenon; and, not solely a Global South phenomenon. My research demonstrates that, within the Global North, we are not immune to sudden environmental disturbance and disaster within urban areas. My Masters of Urban Studies thesis project has contributed to qualitative research pertaining to the environmental displacement of urban populations from the province of Alberta, Canada.

In the 21st century, scholars have been analyzing the community-based experience of environmental displacement (Barrios, 2014; Cox & Perry, 2011; Berkes & Ross, 2012). I have illuminated this experience of environmental displacement in the case of Saddlebrook. I asked the question; how did institutional actors foster community resiliency for displaced persons in temporary housing? I answered this question through an examination of "Place-Based Housing: Maintaining Pre-Disaster Community Connections"; "Building Community through Temporary Housing"; "A Community of Psychosocial Supports", and "The Development of a New Social Network with Robust

Resources”. In alignment with community resiliency, post-disaster temporary housing, and environmental displacement scholars, I argued that institutional actors should intentionally support disaster-affected, displaced persons through their collective capacity to adapt social resources. By doing so, institutional actors can help foster community resiliency for displaced persons.

In a time of neo-liberal policy and practice, displaced persons are often perceived to be a problem and framed to be “resilient” agents in the face of urban disaster (Barrios 2014; Tacoli, 2008). I contend that expecting disaster affected-displaced persons to be “resilient” on their own, without a community of resource supports, is an unreasonable expectation. I have taken an anti-neo-liberal stance. Displaced persons are groups of people who are highly vulnerable and should be accommodated and supported by institutional actors after a disaster. According to the OHCHR, national, regional, and local governments must assist and protect IDPs. However, post-disaster housing and environmental displacement scholars have widely documented that governments are underprepared, lack capacity, lack leadership, and robust resources. In the face of climate change, environmental disturbance, and urban displacement, there is great need for government and non-governmental agencies to collaborate and work together to strategically prepare and plan for temporary housing.

In conclusion, I hope that the case of Saddlebrook, along with the many case studies from around the world, become uncommon stories of flooding, displacement, and urban disaster. Through climate mitigation efforts, my hope is that stories of environmental displacement become less frequent and severe. However, if there is little effort to reduce carbon emissions and mitigate our current climate emergency, urban planners and policy makers should continue to prepare and plan for urban displacement and the need for temporary housing. Saddlebrook is a case study which demonstrates what it takes, on the part of institutional actors, to protect and support displaced persons.

References

Community Resiliency & Resiliency Theory

Community Resiliency

- Abramson, D.M., Grattan, L.M., Mayer, B., Colten, C.E., Arosemena, F.A., Bedimo-Rung, A., & Lichtveld, M. (2015). The Resilience Activation Framework: A Conceptual Model of How Access to Social Resources Promotes Adaptation and Rapid Recovery in Post-disaster Settings. *The Journal of Behavioral Health Services & Research, 42*(1), 42-57.
- Aldrich, D.P., & Meyer, M.A. (2015). Social Capital and Community Resiliency. *Community Resilience Theory, 59*(2), 254-269.
- Barrios, R. (2014). 'Here, I'm not at ease': Anthropological perspectives on community resilience. *Disasters, 38*(2), 329-350.
- Berkes, F. (2007). Understanding uncertainty and reducing vulnerability: lessons from resilience thinking. *Natural Hazards, 41*(2), 283-295.
- Berkes, F., & Ross, H. (2012). Community Resilience: Toward an Integrated Approach. *Society & Natural Resources, 26*, 5-20.
- Bolin, B., & Kurtz, L.C. (2018). Race, Class, Ethnicity, and Disaster Vulnerability. In J. Delamater, H. Rodríguez, W. Donner & J. E. Trainor (Eds.), *Handbook of Disaster Research* (pp.181-203). Cham, Switzerland: Springer International Publishing.
- Bourdieu, P. (1985). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241-258). New York, NY: Greenwood.
- Bowerman, C. Developing a research-specific emergency management programme for municipal resilience following the 2013 flood in southern Alberta. *Journal of Business Continuity & Emergency Planning, 11*(2), 184-95.
- Burawoy, M., Blum J.A., George, S., Gille, Z., Gowan, T., Haney, L., Klawiter, M., Lopez, S.H., Ó Riain, S., & Thayer, M. (2000). *Global Ethnography: Forces, Connections and Imagination in a Postmodern World*. London, England: University of California Press.
- Brown, D., & Kulig, J.C. (1996/1997). The concept of resilience: Theoretical lessons from community research. *Health and Canadian Society, 4*(1), 29–50.

- Brown, K., & Westaway, E. (2011). Agency, Capacity, and Resilience to Environmental Change: Lessons from Human Development, Well-Being, and Disasters. *Annual Review of Environment and Resources*, 36(1), 321–42.
- Calhoun, C. (1998). Community without Propinquity Revisited: Communications Technology and the Transformation of the Urban Public Sphere. *Sociological Inquiry*, 68(3), 373-397.
- Cheshire, L. (2015). 'Know your neighbours': disaster resilience and the normative practices of neighbouring in an urban context. *Environment and Planning A*, 47, 1081-1099.
- Cox, R.S., & Perry, R.M.E. (2011). Like a Fish Out of Water: Reconsidering Disaster Recovery and the Role of Place and Social Capital in Community Disaster Resilience. *Community Psychology*, 48, 395-411.
- Cutter, L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 18, 598-606.
- Delanty, G. (2003). *Community*. London: Routledge.
- Erikson, K. T. (1976). *Everything in its path: Destruction of community in the Buffalo Creek flood*. New York: Simon & Schuster.
- Elliott, J. R., & Pais, J. (2006). Race, class, and Hurricane Katrina: Social differences in human responses to disaster. *Social Science Research*, 35(2), 295–321.
- Goldstein, B. E., ed. (2012). *Collaborative resilience*. Cambridge, MA: MIT Press.
- Hanifan, L. J. (1916). The rural school community center. *Annals of the American Academy of Political and Social Science*, 67, 130-138.
- Hawkins, R.L., & Maurer, K. (2010). Bonding, Bridging and Linking: How Social Capital Operated in New Orleans following Hurricane Katrina. *British Journal of Social Work*, 40, 1777-1793.
- Keck, M., & Sakdapolrak, P. (2013). What Is Social Resilience? Lessons Learned and Ways Forward. *Erdkunde*, 67(1), 5–19.
- Magis, K. (2010). Community Resiliency: An Indicator of Social Sustainability. *Society & Natural Resources*, 23(5), 401-416.
- Maida, C. A. (2007). *Sustainability and communities of place*. New York, NY: Berghahn.
- Manzo, L.C., & Perkins, D. D. (2006). Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning. *Journal of Planning Literature*, 20(4), 335-350.

- Manzo, L.C., Kleit, R. G., & Couch, D. (2008). "Moving Three Times Is Like Having Your House on Fire Once": The Experience of Place and Impending Displacement among Public Housing Residents. *Urban Studies*, 45(9), 1855–1878.
- Mulligan, M., Steele, W., Rickards, L., & Fünfgeld, H. (2016). Keywords in planning: what do we mean by 'community resilience'? *International Planning Studies*, 21(4), 348-361.
- Mueller, E. J., Bell, H., Chang, B. B., & Henneberger, J. (2011). Looking for home after Katrina postdisaster housing policy and low-income survivors. *Journal of Planning Education and Research*, 31(3), 291–307.
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K.F., & Pfefferbaum, R.L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41, 127-150.
- Patel, S.S., Brooke Rogers, M., & Amlôt, R. (2017). What Do We Mean by 'Community Resilience'? A Systematic Literature Review of How It Is Defined in the Literature. *PLoS currents*, 1(9), 1-34.
- Paton, D., Millar, M., Johnston, D. (2001). Community resilience to volcanic hazard consequences. *Natural Hazards*, 24(2), 157-169.
- Peacock, W., Gladwin, H., & Morrow, B. H. (1997). *Hurricane Andrew: Ethnicity, gender and the sociology of disasters*. New York: Routledge
- Pfefferbaum, B. J., Reissman, D. B., Pfefferbaum, R. L., Klomp, R. W., & Gurwitch, R. H. (2005). Building resilience to mass trauma events. In L. S. Doll, S. E. Bonzo, J. A. Mercy & D. A. Sleet (Eds.), *Handbook on injury and violence prevention interventions*. New York: Kluwer Academic Publishers.
- Ritchie, L. A. (2012). Individual Stress, Collective Trauma, and Social Capital in the Wake of the Exxon Valdez Oil Spill. *Sociological Inquiry*, 82(2), 187-211.
- Saul, J. (2014). *Collective trauma, collective healing*. New York: Routledge.
- Sharifi, A. (2016). A critical review of selected tools for assessing community resilience. *Ecological Indicators*, 69: 629-647.
- Sherrieb, K., Norris, F. H., & Galea, S. (2010). Measuring capacities for community resilience. *Social Indicators Research*, 99(2), 227–247.
- Titz, A., Cannon, T., & Kruger, F. (2018). Uncovering 'Community: Challenging an Elusive Concept in Development and Disaster Related Work. *Societies*, 8(71), 1-28.
- Walsh, F. (2007). Traumatic Loss and Major Disasters: Strengthening Family and Community Resilience. *Family Process*, 46(2), 207-227.

Resiliency Theory

- Adger, N.W. (2000). Social and ecological resilience: are they related? *Progress in Human Geography*, 24(3), 347–364
- Adger, N.W., Hughes, T.P., Folke, C., Carpenter, S.R., & Rockstrom, J. (2005). Social-Ecological Resilience to Coastal Disasters. *Science*, 309 (537), 1036-1039.
- Adger, M.W. (2006). Vulnerability. *Global Environmental Change*, 16, 268-281.
- Ayers, J., Kaur, N., & Anderson, S. (2011). Negotiating Climate Resilience in Nepal. *IDS Bulletin Volume*, 42(3), 70- 78.
- Bahadur, A., & Tanner, T. (2014). Transformational resilience thinking: putting people, power and politics at the heart of urban climate resilience. *Environment & Urbanization*, 26(1), 1- 13.
- Beilin, R., & Wilkinson, C. (2015). Introduction: Governing for urban resilience. *Urban Studies*, 52(7), 1205–1217.
- Berke, P. R., & Campanella, T. J. (2006). Planning for post disaster resiliency. *The Annals of the American Academy of Political and Social Science*, 604(1), 192–207.
- Bhamra, R., Daniab, S., & Burnarda, K. (2011). Resilience: the concept, a literature review and future directions. *International Journal of Production Research*, 49 (18), 5375–5393
- Campanella, T.J. (2006). Urban Resilience and the Recovery of New Orleans. *Journal of the American Planning Association*, 72(2), 141-146.
- Cutter, S. (2016). Resilience to What? Resilience for Whom? *The Geographical Journal*, 182(2), 110-13.
- Davoudi, S. (2012). Resilience: A Bridging Concept or a Dead End? *Planning Theory & Practice*, 13(2), 299–333.
- Folke, C. (2006). Resilience: The emergence of a perspective for social–ecological systems analyses. *Global Environmental Change*, 16(3), 253–267.
- Harris, L. M., Chu, E. K., and Ziervogel, G. (2018). Negotiated resilience, *Resilience*, 6(3), 196-214.
- Holling, C.S. (1973). Resilience and Stability of Ecological Systems. *Annual review of ecology and systematics*. 4, 1-24.

- Kendra, J. M., Clay, L.A., & Gill, K.B. (2018). Resilience and Disasters. In J. Delamater, H. Rodríguez, W. Donner, & J. E. Trainor (Eds.), *Handbook of Disaster Research* (pp.87-108). Cham, Switzerland; Springer International Publishing.
- Leichenko, R. (2011). Climate change and urban resilience. *Current Opinion in Environmental Sustainability*, 3(3), 164–168.
- Meerow, S., & Newell, J.P. (2016). Urban resilience for whom, what, when, where, and why? *Urban Geography*, 40(3), 309-329
- Smith, A., & Stirling, A. (2010). The Politics of Social-ecological Resilience and Sustainable Sociotechnical Transitions. *Ecology and Society*, 15(1), 1- 13
- Vale, L. (2014). The politics of resilient cities: whose resilience and whose city? *Building Research & Information*, 42(2), 191–201.
- Vale, L., & Campanella, T. (2005). *The Resilient City: New Modern Cities Recover from Disaster*. New York, NY: Oxford University Press.
- Walsh-Dille, M., & Wolford, W. (2015). (Un)Defining resilience: subjective understandings of 'resilience' from the field. *Resilience*, 3(3), 1-10.

Environmental Migration & Displacement

- Adamo, S. (2010). Environmental migration and cities in the context of global environmental change. *Current Opinion in Environmental Sustainability*, 2, 161-165.
- Bates, D. C. (2002). Environmental refugees? Classifying human migrations caused by environmental change. *Population and Environment*, 23(5), 465–477.
- Bell, H. (2008). Case Management with Displaced Survivors of Hurricane Katrina. *Journal of Social Service Research*, 34(3), 2008.
- Black, R., Kniveton, D., Schmidt-Verkerk, K. (2011). Migration and climate change: towards an integrated assessment of sensitivity. *Environment and Planning A: Economy and Space*, 43(2), 431-447.
- Black, R., Arnell, N. W., Adger, W. N., Thomas, D., & Geddes, A. (2013). Migration, immobility and displacement outcomes following extreme events. *Environmental Science & Policy*, 27S: S32-S42.
- Bolin, R. (1982). *Long-Term Family Recovery from Disaster*. Monograph 36, Natural Hazards Center. Boulder, CO: University of Colorado Natural Hazard.
- Courtney, C. (2018). *The Nature of Disaster in China: The 1931 Yangzi River Flood*. Cambridge, United Kingdom. The Cambridge University Press.

- Demenocal, P. B., & Stringer, C. (2016). Climate and the peopling of the world. *Nature*, 538, 49 -50.
- Dun, O., & Gemenne, F. (2008). Defining 'environmental migration'. *Forced Migration Review*, 31, 10-11.
- Erikson, K. T. (1976). *Everything in its path: Destruction of community in the Buffalo Creek flood*. New York, NY: Simon & Schuster.
- Esnard, A.M. & Sapat, A. (2014). *Displaced by Disaster: Recovery and Resilience in a Globalizing World*. New York, NY: Routledge.
- Esnard, A.M., & Sapat, A. (2018). Population/Community Displacement. In J. Delamater, H. Rodríguez, W. Donner, & J. E. Trainor (Eds.), *Handbook of Disaster Research* (pp.431-446). Cham, Switzerland: Springer International Publishing.
- Findlay, A. M. (2011). Migrant destinations in an era of environmental change. *Global Environmental Change*, 215, 550–558
- Fussell, E., Hunter, L.M., and Gray, C.L. (2014). Measuring the environmental dimensions of human migration: The demographer's toolkit. *Global Environmental Change*, 28, 182-191.
- Gemenne, F. (2011). *How They Became the Face of Climate Change: Research and policy interactions in the birth of the "environmental migration" concept*. In E. Piguet, A. Pecoud, & P. de Guchteneire (Eds.), *Migration, environment and climate change* (pp. 225–259).
- Gemenne, F. (2011). Why the numbers don't add up: A review of estimates and predictions of people displaced by environmental changes. *Global Environmental Change*, S41-S49.
- Gonzalez, N. (1961). Family organization in five types of migratory wage labor. *American Anthropologist*, 63(6), 1264 –1280.
- Goodell, J. (2017). *The Water Will Come: Rising Seas, Sinking Cities, and the Remaking of the Civilized World*. New York, NY: Little, Brown and Company.
- Grecequet, M., DeWaard, J., Hellmann, J., and Abel, G. (2017). Climate Vulnerability and Human Migration in Global Perspective. *Sustainability*, 9(5), 1-10.
- Grigg, D. B. (1977). E. G. Ravenstein & the Laws of Migration. *Journal of Historical Geography*. 3(1), 41 -54.
- Groen, J. A., & Polivka, A. E. (2008). Going home after Hurricane Katrina: Determinants of return migration and changes in affected areas. *Demography*, 47(4), 821-844.

- Haney, T.J., and McDonald-Harker, C. (2017). The River Is Not the Same Anymore: Environmental Risk and Uncertainty in the Aftermath of the High River, Alberta, Flood. *Social Currents*, 4(6), 594– 612.
- Hartmann, B. (2010). Rethinking Climate Refugees and Climate Conflict: Rhetoric, Reality and the Politics of Policy Discourse. *Journal of International Development*, 22, 233–246.
- Lee, E. (1966). A theory of migration. *Demography*, 3(1), 47 – 57.
- Levine, J. N., Esnard, A. M., & Sapat, A. (2007). Population displacement and housing dilemmas due to catastrophic disasters. *Journal of Planning Literature*, 22(1), 3 – 15.
- McGranahan, G., Balk, D., & Anderson, B. (2007). The rising tide: assessing the risks of climate change and human settlements in low elevation coastal zones. *Environment & Urbanization*, 19(1), 17–37.
- McLeman, R., & Smit, B. (2006). Migration as an adaptation to climate change. *Climatic Change*, 76(1–2), 31–53.
- McLeman, R. (2014). *Climate and Human Migration: Past Experiences, Future Challenges*. New York, NY: Cambridge University Press.
- McLeman, R., Schade, J., & Faist, T. (Eds.), (2015). *Environmental Migration and Social Inequality*. Dordrecht, Netherlands: Springer International Publishing.
- Myers N. (1995). *Environmental Exodus: An Emergent Crisis in the Global Arena*. Washington, DC: The Climate Institute.
- Piguet, E. (2010). Linking climate change, environmental degradation, and migration: A methodological overview. *WIREs Climate Change*, 1, 517–524.
- Tacoli, C. (2009). Crisis or adaptation? Migration and climate change in a context of high mobility. *Environment & Urbanization*, 21(2), 513-529.
- Warner, K. (2010). Global environmental change and migration: Governance challenges. *Global Environmental Change*, 20, 402–413.

Primary Documents

- Alberta Emergency Management Act. (2019). Alberta Emergency Management Agency. Retrieved from <https://www.alberta.ca/alberta-emergency-management-agency.aspx>

- Alberta Emergency Management Agency. (2014). Emergency Planning: Lessons from High River 2013 Flood. Retrieved August 29, 2016 (http://www.aema.alberta.ca/documents/A1_Emergency_Planning_Lessons_from_High_River_2013_Flood.pdf).
- Alberta Government. (2013a). Establishment of Temporary Neighbourhoods for Post-Disaster Occupancy. Retrieved from <http://municipalaffairs.gov.ab.ca/documents/ss/STANDATA/building/bcr/06BCV015-OrigSigned.pdf>
- Alberta Government. (2013b). Government of Alberta Flood Recovery Plan. Retrieved from <https://www.alberta.ca/assets/documents/2013-GoA-Flood-Recovery-Plan.pdf>
- Alberta Government. (2013c). Southern Alberta 2013 Floods: The Provincial Recovery Framework. Retrieved from <https://www.alberta.ca/assets/documents/2013-Flood-Recovery-Framework.pdf>
- Alberta Government. (2014). June 2013 Southern Alberta Floods: One Year Report. Retrieved from <http://www.aema.alberta.ca/documents/2013-flood-response-report.pdf>
- Alberta Government. (2015). Agroclimatic Atlas of Alberta: Climate of Alberta. Retrieved from [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/sag6299](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sag6299)
- Alberta Government. (2016). Provincial Emergency Social Services Framework. Retrieved from <http://www.aema.alberta.ca/documents/PESS-Framework-Final-Documents-01182016.pdf>
- Alberta Government. (2018) Disaster Recovery Programs. Retrieved from <https://www.alberta.ca/disaster-recovery-programs.aspx>
- Alberta Government. (2019a). Alberta Disaster Assistance Guidelines. Retrieved from <https://open.alberta.ca/dataset/807e167b-d0f1-4ed6-958e-976025a75dc7/resource/565f2e75-cef2-48d5-a2d1-8dc79e50db4c/download/2019-dag.pdf>
- Alberta Government. (2019b). Policing in Alberta. Retrieved from <https://www.alberta.ca/policing-in-alberta.aspx>
- Annan, Kofi, 2002: Foreword to Living with Risk: A Global Review of Disaster Reduction Initiatives, (UN/ISDR). Quoted in UN/ISDR, 2003: Disaster Reduction and Sustainable Development. A background paper for the World Summit on Sustainable Development; <http://www.unisdr.org> (2006):1.
- Canadian Red Cross. (2013). Alberta Floods: 3 Months After the Disaster. Retrieved from http://www.redcross.ca/crc/documents/Where-We-Work/Canada/Alberta/alberta-floods-3-month-report_1.pdf

- CBC News. (2013). Alberta flood: 'I watched a refrigerator go by. It's insane'. Retrieved from <https://www.cbc.ca/news/canada/calgary/alberta-flood-i-watched-a-refrigerator-go-by-it-s-insane-1.1404794>
- City of Calgary. (2013). Executive Summary: Temporary Neighbourhoods. Retrieved from <https://pub-calgary.escribemeetings.com/filestream.ashx?DocumentId=25557>
- City of Calgary. (2018). Quietly, the Calgary Emergency Management Agency and Canada Task Force 2 await next disaster. Retrieved from Quietly, the Calgary Emergency Management Agency and Canada Task Force 2 await next disaster
- City of Calgary. (2019). Calgary Emergency Management Agency. Retrieved from <https://www.calgary.ca/CSPS/cema/Pages/home.aspx?redirect=/cema>
- CTV News, (2013). Southern Alberta's flooded communities face more rain through weekend. Retrieved from <https://www.ctvnews.ca/canada/southern-alberta-s-flooded-communities-face-more-rain-through-weekend-1.1336708>
- CBC News. (2013). High River's temporary flood neighbourhood almost full. Retrieved from <https://www.cbc.ca/news/canada/calgary/high-river-s-temporary-flood-neighbourhood-almost-full-1.1870882>
- CBC News. (2014). High River's flood evacuee complex Saddlebrook to close. Retrieved from <https://www.cbc.ca/news/canada/calgary/high-river-s-flood-evacuee-complex-saddlebrook-to-close-1.2736468>
- Clinton, W.J. (2006). Key propositions for building back better: lessons learned from tsunami recovery. Retrieved from <https://www.recoveryplatform.org/assets/publication/Tsunami%20Recovery/key%20propositions%20for%20building%20back%20better%20-%20tsunami%20-%20UN.pdf>
- Crawford, N., Cosgrave, J., Haysom, S., & Walicki, N. (2015). Protracted displacement: uncertain paths to self-reliance in exile. Retrieved from <http://www.internal-displacement.org/sites/default/files/inline-files/201509-global-protracted-displacement-odi-%20FULL-Report.pdf>
- Cryderman, K. (2013). For High River residents, maintaining a festive spirit is a difficult task. Retrieved from <https://www.theglobeandmail.com/news/national/for-high-river-residents-maintaining-a-festive-spirit-is-a-difficult-task/article16105122/>
- Cryderman, K. (2014). Almost a year after the Alberta flood, housing market yet to recover. Retrieved from <https://www.theglobeandmail.com/real-estate/the-market/after-the-flood-the-deluge/article18293150/>
- CTV News. (2013). Thousands of Calgarians displaced by flooding. Retrieved from <https://calgary.ctvnews.ca/thousands-of-calgarians-displaced-by-flooding-1.1334012>

- EcoWatch. (2017). Disaster-Induced Grows Worldwide. Retrieved from <https://www.ecowatch.com/disaster-induced-displacement-grows-worldwide-1881953650.html>
- Foothills County. (2019). About Foothills County. Retrieved from <https://www.mdfoothills.com/about.html>
- Foothills Foundation. (2013a). Saddlebrook Handbook.
- Foothills Foundation. (2013b). Saddlebrook Temporary Occupancy Agreement.
- Foothills Foundation. (2013c). Saddlebrook Tenant Orientation Checklist.
- Foothills Foundation. (2014). Saddlebrook Client Services: Operations Summary.
- Franklin, M. (2013). Temporary neighbourhood in High River now accepting families. Retrieved from [https://Temporary neighbourhood in High River now accepting familiescalgary.ctvnews.ca/temporary-neighbourhood-in-high-river-now-accepting-families-1.1403010](https://Temporary%20neighbourhood%20in%20High%20River%20now%20accepting%20families%20calgary.ctvnews.ca/temporary-neighbourhood-in-high-river-now-accepting-families-1.1403010)
- Galea, D. (2014). Come Hell or High Water: How Alberta's Best Responded to its Worst Ever Disaster. Retrieved from https://www.crhnet.ca/sites/default/files/library/KN-01_Galea_2013.pdf
- Gilbert, R. (2013). Alberta government building more short-term housing for displaced residents. Retrieved from <https://canada.constructconnect.com/joc/news/Projects/2013/9/Alberta-government-building-more-short-term-housing-for-displaced-residents-JOC056775W>
- Gilligan, M. (2013). Great Plains opens to flood affected Calgarians. Retrieved from <https://globalnews.ca/news/901715/great-plains-opens-to-flood-affected-calgarians/>
- Global News. (2013). High River flood evacuees to move into temporary neighbourhood. Retrieved from <https://globalnews.ca/news/736983/high-river-flood-evacuees-to-move-into-temporary-neighbourhood/>
- Government of British Columbia. (2016). Census Population of BC and Canada. Retrieved from <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Census/2016Census/PopulationHousing/BCCanada.aspx>
- Government of Canada. (2015). Chair-Initiated Complaint and Public Interest Investigation into the RCMP's Response to the 2013 flood in High River, Alberta. Retrieved from http://publications.gc.ca/collections/collection_2016/ccetp-crcr/PS78-11-2015-eng.pdf

- Government of Canada. (2017). Canada's top ten weather stories of 2013. Retrieved from <https://www.ec.gc.ca/meteo-weather/default.asp?lang=En&n=5BA5E AFC-1&offset=2&toc=hide>
- Government of Canada. (2019). Emergency Management Act. Retrieved from <https://laws-lois.justice.gc.ca/PDF/E-4.56.pdf>
- Graveland, B. (2014a). Alberta temporary neighbourhood set up after floods isn't closing just yet, minister says. Retrieved from <https://www.theglobeandmail.com/news/national/alberta-temporary-neighbourhood-set-up-after-floods-isnt-closing-just-yet-minister-says/article16832590/>
- Graveland, B. (2014b). 'It's still not home:' residents of High River still out one year after flood. Retrieved from http://www.kelownadailycourier.ca/weather/article_712ba533-8cf5-5b39-bb93-e8bc5f6d6448.html
- Graveland, B. (2014c) Saddlebrook Temporary Flood Neighbourhood Won't Close Any Time Soon: Minister. Retrieved from https://www.huffingtonpost.ca/2014/02/12/saddlebrook-temporary-flood-neighbourhood_n_4775216.html
- Graveland, B. (2014d). Alberta in no rush to close temporary neighbourhood following floods: Minister. Retrieved from <https://www.ctvnews.ca/canada/alberta-in-no-rush-to-close-temporary-neighbourhood-following-floods-minister-1.1682898>
- Graveland, B. (2017). Visible and hidden scars remain in High River although flood rebuild almost completed. Retrieved from <http://www.cbc.ca/news/canada/calgary/high-river-flood-rebuild-1.4166727>
- Guha-Sapir, D., Hoyois, P., Wallemacq, P., and Below, R. (2016). Annual Disaster Statistical Review 2016: The numbers and trends. Retrieved from <https://reliefweb.int/report/world/annual-disaster-statistical-review-2016-numbers-and-trends>
- High River Online. (2013). Saddlebrook Reaches Capacity. Retrieved from <https://www.highriveronline.com/local/saddlebrook-reaches-capacity>
- High River Online. (2014). "Great Plains" Temporary Neighborhood Closing. Retrieved from <https://www.highriveronline.com/local/province-plans-to-close-qgreat-plainsq-temporary-neighborhood->
- Hjalte, L. (2013). High River families move into makeshift trailer towns as they try to rebuild mold-ridden homes. Retrieved from <https://nationalpost.com/news/canada/high-river-families-forced-to-move-into-makeshift-trailer-towns-as-they-try-to-rebuild-mold-ridden-homes>

- Howell, T. (2014). Province poised to close Saddlebrook temporary housing camp for High River flood victims. Calgary Herald. Retrieved from <http://www.calgaryherald.com/news/Province+poised+close+Saddlebrook+temporary+housing+camp+High+River+flood+victims/10029038/story.html>
- ICIMOD. (2008). Resource Manual on Flash Flood Risk Management. Retrieved from http://lib.icimod.org/record/27693/files/icimod-resource_manual_on_flash_flood_risk_management.pdf
- IDMC. (2015). Global Estimates 2015: People displaced by disasters. Retrieved from <http://www.internal-displacement.org/assets/library/Media/201507-globalEstimates-2015/20150713-global-estimates-2015-en-v1.pdf>
- IDMC. (2016). Leaving no one behind: Internal displacement and the New Urban Agenda. Retrieved from <http://www.internal-displacement.org/assets/publications/2016/20161011-new-urban-agenda.pdf>
- IDMC. (2017). Canada: Country Profile. Retrieved from <http://www.internaldisplacement.org/countries/canada/>
- IDMC. (2018). Urban myths? Debunking claims about displacement in cities. Retrieved from <http://www.internal-displacement.org/library/expert-opinion/2018/urban-myths-debunking-claims-about-displacement-in-cities>
- IDMC. (2019a). Global Report on Internal Displacement. Retrieved from <http://www.internal-displacement.org/sites/default/files/publications/documents/2019-IDMC-GRID.pdf>
- IDMC. (2019b). Disaster Displacement: A global review 2008 – 2018. Retrieved from <http://www.internal-displacement.org/sites/default/files/publications/documents/201905-disaster-displacement-global-review-2008-2018.pdf>
- IPCC. (2019). Global warming of 1.5°C. Retrieved from https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_Low_Res.pdf
- IPCC). (2007). Climate Change 2007: Working Group II: Impacts, Adaptation and Vulnerability. Retrieved from https://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch3s3-4-3.html
- Klingbeil, A. (2013). High River residents in temporary housing spend Thanksgiving waiting for answers. Retrieved from <http://www.calgaryherald.com/high+river+residents+temporary+housing+spend+thanksgiving+waiting+answers/9033677/story.html>
- MNP LLP. (2015). Review and Analysis of the Government of Alberta's Response to and Recovery from 2013 Floods. Retrieved from <http://www.aema.alberta.ca/documents/2013-flood-response-report.pdf>

- Mulholand, A. (2014). One year later, High River resident living in a trailer. Retrieved from <https://www.ctvnews.ca/one-year-later-high-river-resident-living-in-a-trailer-1.1878274>
- Public Safety Canada. (2017). An Emergency Management Framework for Canada. Retrieved from <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/2017-mrgnc-mngmnt-frmwrk/2017-mrgnc-mngmnt-frmwrk-en.pdf>
- OHCHR. (2019). Questions and Answers about IDPs. Retrieved from <https://www.ohchr.org/EN/Issues/IDPersons/Pages/Issues.aspx>
- Okotoks Online, 2013. Government of Alberta Providing Interim Accommodations for High River Residents. Retrieved from <https://www.okotoksonline.com/local/government-of-alberta-providing-interim-accomodations-for-high-river-residents>
- Read, S. (2013). Second flash flood warning issued. Retrieved from <https://www.nantonnews.com/2013/06/21/second-flash-flood-warning-issued/wcm/c2c27e7f-6c40-0479-e714-7c75e05347ba>
- Rushworth, K. (2013). Saddlebrook open to residents. Retrieved from <https://www.highrivertimes.com/2013/07/23/saddlebrook-open-to-residents/wcm/a4dee4ff-3324-9814-6f22-d98ac60024ce>
- Schmidt, C. (2013). High River residents move into Saddlebrook. Retrieved from <https://calgary.ctvnews.ca/high-river-residents-move-into-saddlebrook-1.1381365>
- Senger, E. (2013). After the High River flood. Retrieved from <https://www.macleans.ca/news/canada/after-the-high-river-flood/>
- Senger, E. (2014). Still waiting, still worrying in High River. Retrieved from <https://www.macleans.ca/news/canada/still-waiting-still-worrying-in-high-river/>
- Stantec. (2017). Government of Alberta: Disaster Recovery Housing Program. Retrieved from <https://www.stantec.com/en/about/community-engagement/Community-Stories/the-alberta-floods-stories0/goa-disaster-recovery-housing-program>.
- Statistics Canada. (2016a). Census Profile, 2016 Census. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=59&Geo2=PR&Code2=01&SearchText=Canada&SearchType=Begins&SearchPR=01&B1=All&type=0>
- Statistics Canada, (2016b). Census Profile, 2016 Census. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/search-recherche/lst/results-resultats.cfm?Lang=E&TABID=1&G=1&Geo1=&Code1=&Geo2=&Code2=&GEOCODE=48&type=0>

Town of High River. (2014). After Action Report: June 2013 Flood. Retrieved from <https://www.crhnet.ca/sites/default/files/library/High%20River.2014.After%20Action.June%202013%20flood.pdf>

UNISDR. (2012). UN System Task Team on the Post-2015 UN Development Agenda: Disaster Risk and Resilience. Retrieved from https://www.un.org/en/development/desa/policy/untaskteam_undf/thinkpieces/3_disaster_risk_resilience.pdf

UNESCO. (2018). International Migration: Displaced Person/Displacement. Retrieved from <http://www.unesco.org/new/en/social-and-human-sciences/themes/international-migration/glossary/displaced-person-displacement/>

UNHCR. (2004). Guiding Principles on Internal Displacement. Retrieved from <http://www.unhcr.org/protection/idps/43ce1cff2/guiding-principles-internal-displacement.html>

UNHCR. (2012). Global Trends 2012. Retrieved from <http://www.unhcr.org/statistics/country/51bacb0f9/unhcr-global-trends-2012.html>

UNHCR. (2018). Emergency Handbook: IDP Definition. Retrieved from <file:///C:/Users/Sarah/Documents/URB%20697/Grey%20Lit/Emergency%20handbook.pdf>

USAID. (2017). Disaster Data: A Balanced Perspective. Retrieved from <https://reliefweb.int/report/world/cred-crunch-newsletter-issue-no-41-february-2016-disaster-data-balanced-perspective>

Wennersten, J.R., and Robbins, D. (2017). *Rising Tides: Climate Refugees in the Twenty-First Century*. Indiana University Press. Blomington, Indiana.

Wood, J. (2014). Government under fire for \$88M spent on temporary housing for flood victims. Retrieved from <http://www.calgaryherald.com/news/alberta/Government+under+fire+spent+temporary+housing+flood+victims/9768811/story.html>

Post-Disaster Housing

Comerio, M.C. (1998). *Disaster Hits Home: New Policy for Urban Housing Recovery*. London, England: University of California Press.

Comerio, M.C. (2014). Housing Recovery Lessons From Chile. *Journal of the American Planning Association*, 80(4), 340-50.

El-Anwar, O. (2013). Maximising the net social benefit of the construction of post-disaster alternative housing projects. *Disasters*, 37(3), 489–515.

- El-Anwar, O., ASCE, A.M., & Chen, L. (2016). Computing a Displacement Distance Equivalent to Optimize Plans for Postdisaster Temporary Housing Projects. *Journal of Construction Engineering & Management*, 139(2), 174-184.
- Felix, D., Monteiro, D., Branco, J., Bologna, R., & Feio, A. (2015). The role of temporary accommodation buildings for post-disaster housing reconstruction. *Journal of Housing and the Built Environment*, 30, 683–699.
- Hosseini, S.M.A., de la Fuente, A., & Pons, O. (2016). Multicriteria Decision-Making Method for Sustainable Site Location of Post-Disaster Temporary Housing in Urban Areas. *American Society of Civil Engineers*, 2-13.
- Iuchi, K. (2014). Planning Resettlement After Disasters. *Journal of the American Planning Association*, 80(4), 413 - 425.
- Johnson, C., Lizarralde, G., & Davidson, C. H. (2006). A systems view of temporary housing projects in post-disaster reconstruction. *Construction Management and Economics*, 24, 367–378.
- Johnson, C. (2007). Strategic planning for post-disaster temporary housing. *Disasters*, 31(4), 435–458.
- Lyons, M. (2009). Building Back Better: The Large-Scale Impact of Small-Scale Approaches to Reconstruction. *World Development*, 37(2), 385-398.
- Nigg, M.J., Barnshaw, J., & Torres, M. R. (2006). Hurricane Katrina and the Flooding of New Orleans: Emergent Issues in Sheltering and Temporary Housing. *The Annals of the American Academy*, 604(1), 113-128
- Oliver-Smith, A. (1990). Post disaster housing reconstruction and social inequality: A challenge to policy and practice. *Disasters*, 14(1), 7–19.
- Oliver-Smith, A. (1991). Successes and Failures in Post-Disaster Resettlement. *Disaster*, 15(1), 12–23.
- Peacock, W. G., Dash, N., & Zhang, Y. (2018). Sheltering and Housing Recovery Following Disaster. In J. Delamater, H. Rodríguez, W. Donner & J. E. Trainor (Eds.), *Handbook of Disaster Research* (pp.258-274). Cham, Switzerland: Springer International Publishing.
- Pistrika, A.K., & Jonkman, S.N. (2010). Damage to residential buildings due to flooding of New Orleans after hurricane Katrina. *Natural Hazards*, 54, 413–434.
- Quarantelli, E. L. (1982). General and particular observations on sheltering and housing in American disasters. *Disasters*, 6, 277–281.

- Quarentelli, E. L. (1991). Disaster response: Generic or agent-specific. In A. Kreimer & M. Mujnasinghe (Eds.), *Managing natural disasters and the environment* (pp. 97–105). Washington, DC: World Bank.
- Quarantelli, E.L. (1995) Patterns of shelter and housing in US disasters. *Disaster Prevention and Management*, 4(3), 43–53.
- Ramirez, C.C., & Sanchez, E.A. Quality Indicators in Post-Disaster Housing: Case of the 2017 Coastal El Niño, Piura. Retrieved from http://www.iaeng.org/publication/WCECS2018/WCECS2018_pp747-751.pdf
- Sou, G. (2015). Post-disaster resettlement in urban Bolivia. *Forced Migration Review*, 49, 30-32.
- Spokane, A.R., Mori, Y., & Martinez, F. (2012). Housing Arrays Following Disasters: Social Vulnerability Considerations in Designing Transitional Communities. *Environment and Behavior*, 45(7), 887-911.
- Tierney, K., Lindell, M., & Perry, R. W. (2001). *Facing the unexpected*. Washington, DC: John Henry Press.
- Wagemann, E. (2017). Need for adaptation: transformation of temporary houses. *Disasters*, 41(4), 828–851.
- Zhang, Y., & Peacock, W. G. (2010). Planning for housing recovery? Lessons learned from Hurricane Andrew. *Journal of American Planning Association*, 71(5), 5–24.

Research Methods

- Babbie, E. (2015). *The Practice of Social Research*. Belmont, CA: Wadsworth Cengage Learning.
- Babbie, E., & Benaquisto, L. (2002). *Fundamentals of Social Research*. Scarborough, ON: Thomson Canada Limited.
- Byrant, A. (2002). *Grounded Theory and Grounded Theorizing: Pragmatism in Research Practice*. New York, NY: Oxford University Press.
- Charmaz, K. (2014). *Constructing Grounded Theory*. London: Sage Publications Ltd.
- McIntosh, M.J., & Morse, J.M. (2015). Situating and Constructing Diversity in Semi-Structured Interviews, *Global Qualitative Nursing Research*, 2, 1–12

Urban Disaster Management

- Courtney, C. (2018). *The Nature of Disaster in China: The 1931 Yangzi River Flood*. Cambridge, United Kingdom: Cambridge University Press.
- Drabek, T. E., & McEntire, D. (2003). Emergent phenomena and the sociology of disaster. *Disaster Prevention and Management*, 12(2), 97–112.
- Fulton, A.E., & Drolet, J. (2018). Responding to Disaster-Related Loss and Grief: Recovering From the 2013 Flood in Southern Alberta, Canada. *Journal of Loss and Trauma*, 23(3), 140-158.
- Haas, J.E., Kates, W. & Bowden, M. J (Eds.). (1977). *Reconstruction Following Disaster*, Cambridge, MA: MIT Press.
- Haney, T.J. & McDonald-Harker, C. (2017). “The River Is Not the Same Anymore”: Environmental Risk and Uncertainty in the Aftermath of the High River, Alberta. Flood. *Social Currents*, 4(6), 594–612.
- Hale, G. (2013). Emergency management in Alberta: A study in multilevel governance. In D. Henstra (Ed.), *Multilevel Governance and Emergency Management in Canadian Municipalities* (pp.134-189). Montreal & Kingston: McGill-Queens University Press.
- Hubbart, J.A., & Jones, J.R. (2009). Floods. In Likens, G. L. *Encyclopedia of Inland Waters*. Academic Press.
- Hunt, A., & Watkiss, P. (2011). Climate change impacts and adaptation in cities: a review of the literature. *Climatic Change*, 104,13–49.
- National Research Council. (2006). *Facing Hazards and Disasters: Understanding Human Dimensions*. Washington, D.C: The National Academic Press
- Platt, S., & So, E. (2017). Speed or deliberation: a comparison of post-disaster recovery in Japan, Turkey, and Chile. *Disasters*, 41(4), 696–727.
- Kates, R.W., & Pijawka, D. (1977). From rubble to monument: The pace of reconstruction. In J. Haas, R. Kates, & M. Bowden (eds.) *Reconstruction Following Disaster* (pp. 1-24). Cambridge, MA: MIT Press.
- Kemp, S.P., & Palinkas, L.A. (2015). Strengthening the Social Response to the Human Impacts of Environmental Change. Retrieved from <https://grandchallengesforsocialwork.org/wp-content/uploads/2015/12/WP5-with-cover.pdf>
- Liao, K-H. (2012). A Theory on Urban Resilience to Floods—A Basis for Alternative Planning Practices. *Ecology and Society*, 17(4), 1-15.

Rodríguez, H., Donner, W., & Trainor, J. E. (2018). *Handbook of Disaster Research*. Cham, Switzerland: Springer International Publishing.

Yi, H., & Yang, J. (2014). Research trends of post-disaster reconstruction: The past and the future. *Habitat International*, 42, 21-29.

Appendix A.

Photos of Saddlebrook courtesy of Outland





Appendix B.

Group A: Government & Non-Governmental Actors

What was your role in the planning and implementation of the post-disaster resettlement process which was designed to benefit displaced persons after the Alberta flood of 2013?

How would you describe the post-disaster resettlement service/project/program which you helped design and implement? And, what were the key steps or stages involved in the planning and implementation of this specific service, project or program?

What factors (political, social, economic, environmental etc.) enabled the development of the Great Plains and Saddlebrook Temporary Neighbourhood after the Alberta flood of 2013?

What were the needs, interests, and priorities of displaced persons who resided in the Great Plains and Saddlebrook Temporary Neighbourhood?

What factors contributed to the ability of displaced persons to quickly move out (i.e. within months) of the Great Plains and Saddlebrook Temporary Neighbourhood?

What factors contributed to the prolonged accommodation (i.e beyond 6 months) of displaced persons in the Great Plains and Saddlebrook Temporary Neighbourhood?

In what ways were government and non-governmental actors able to effectively respond to the issue of flood-induced displacement and subsequently transition displaced persons from temporary to permanent housing?

What challenges did you encounter in the process of transitioning displaced persons from temporary to permanent housing?

What lessons did you learn in terms of how to plan and implement a post-disaster resettlement process for displaced persons after a flood?

Do you have anything else that you think that I should know and that you would like to share with me?

Do you have any questions for me at this point in time?

Thank you for your time and participation in this study.

Appendix C.

Group B: Formerly Displaced Persons

After the flood of 2013, what factors influenced your decision to move into the Great Plains or Saddlebrook Temporary Neighbourhood?

What was it like living in the temporary neighbourhood?

Is there anything about the temporary neighbourhood that you would have changed?

What services were provided to people who lived in the temporary neighbourhood? And, in what ways did these services help you?

What factors enabled you to move out of the temporary neighbourhood and into permanent housing? And, in what ways did you receive support from government or non-governmental services in order to move out of the temporary neighbourhood?

Did you feel that you experienced some challenges in the process of transitioning from temporary to permanent housing? If so, could you please explain what those challenges were?

What would you have done if temporary neighbourhoods were not a housing option after the flood of 2013?

Do you have any recommendations in regards to how to improve services and supports for people residing in temporary neighbourhoods after a flood?

Do you have anything else that you would like to share with me?

Do you have any questions for me at this point in time? Thank you for your time and participation in this study.

Group B Questions: Spanish Version

(Grupo B: Personas Desplazadas Anteriormente)

Después de la inundación de 2013, ¿qué factores influyeron en su decisión de mudarse a Great Plains o Saddlebrook Temporary Neighborhood?

¿Cómo fue vivir en el vecindario temporal? 3. ¿Hay algo sobre el vecindario temporal que hubieras cambiado?

¿Qué servicios se proporcionaron a las personas que vivían en el vecindario temporal?
¿Y, de qué manera te ayudaron estos servicios?

¿Qué factores le permitieron mudarse del vecindario temporal a una vivienda permanente? ¿Y, de qué manera recibió ayuda del gobierno o de servicios no gubernamentales para salir del vecindario temporal?

¿Sintió que experimentó algunos desafíos en el proceso de transición de una vivienda temporal a una permanente? De ser así, ¿podría explicarnos cuáles fueron esos desafíos?

¿Qué hubieras hecho si los vecindarios temporales no fueran una opción de vivienda después de la inundación de 2013?

¿Tiene alguna recomendación con respecto a cómo mejorar los servicios y apoyos para las personas que residen en barrios temporales después de una inundación?

¿Tienes algo más que te gustaría compartir conmigo?

¿Tiene alguna pregunta para mí en este momento? Gracias por su tiempo y participación en este estudio.