THE JULY 1996 SAGUENAY DISASTER: IMPACTS ON REDEFINING THE HABITAT

Research report submitted to

Canada Mortgage and Housing Corporation

Researchers:

Danielle Maltais, Ph.D.

Suzie Robichaud, Ph.D.

Research Assistant:

Anne Simard

Université du Québec à Chicoutimi January 1999

This project was completed thanks to a financial contribution from Canada Mortgage and Housing Corporation within the framework of the External Research Program. The ideas expressed are those of the authors and do not represent the official viewpoint of CMHC.

The essence of a home is not that it shelters you, nor even that it keeps you warm, but that it has instilled in your heart the warmth which makes it so valuable. [tr]

Saint-Exupéry

ACKNOWLEDGEMENTS

This research document could not have been produced without the support of Canada Mortgage and Housing Corporation and without the devoted and professional work done by Anne Simard.

We also wish to highlight the ready availability of the interviewers: Guy Moffat and Christian Moreau. Through her skill and receptiveness, Esther Cloutier provided great help for us in presenting this document.

Research such as this could not take place without the male and female respondents who, in spite of the numerous tasks incumbent on them following the July 1996 floods, generously shared their feelings with our team.

EXECUTIVE SUMMARY

This research document should provide an understanding, based on a target population in the Saguenay region, of the impacts of a natural disaster on the concept of a home and the role it plays during the various phases disaster victims go through in an involuntary relocation process. More specifically, it attempts to provide answers for the following questions:

- What were the residential itineraries of the families who were involuntarily displaced as a result of the July 1996 floods?
- What changes occur in the concept of one's home among the individuals who were forced to relocate involuntarily?
- Which mechanisms were used by individuals to become integrated into their new community?
- Which decision-making strategies can take into account the needs and life experiences of the displaced persons?

The research strategy used is based on the qualitative approach that requires questioning approximately forty individuals or couples who lost their house and all their personal possessions at the time of the July 1996 floods. In order to tie the observation to the explanation, two verification instruments were selected: the semi-directed interview and the fact sheet. The answer to the stated questions leads to the following results: in addition to being affected physically and psychologically by the direct consequences of the disaster and by the numerous difficulties associated with it, many elements of the disaster victims' personal, family, professional and social lives were altered. a) The residential itineraries were a very great source of stress (the majority of the disaster victims were relocated three or four times before moving into their current permanent residence). b) Integration into a new neighbourhood was achieved primarily with the participation of family and friends, as the new neighbours were often absent from the process. For the disaster victims, life in a new neighbourhood means estrangement, even bereavement: "A separation from friends, the loss of a sense of security, a change in lifestyle, financial constraints, etc." c) The loss of "this paradise [...] this beautiful corner of the world" requires a new definition of a habitat which is stamped with quite negative images or portrayals (feeling of strangeness, nostalgia, indebtedness, sentimental losses, etc.). d) Lastly, to inform and guide people who are likely to sustain future disaster-related damages, the victims provide some suggestions. Furthermore, they suggest that victims take a step back before taking important steps. While, for their part, volunteers must demonstrate an understanding and a generous attitude at all times, the government authorities should, for their part, reduce

bureaucratic and administrative requirements. Finally, disaster victims suggest extending the financial and psychological assistance period.

SOMMAIRE

Le parcours de cette recherche doit permettre d'apprécier, à partir d'une population cible de la région du Saguenay, les conséquences d'un désastre naturel sur la conception du chez-soi et du rôle que joue celle-ci dans les différentes étapes que traversent les sinistrés dans un processus de relocalisation involontaire. Plus précisément, elle tente de répondre aux questions suivantes:

- Quels ont été les itinéraires résidentiels des familles involontairement délogées à la suite des inondations de juillet 1996?
- Quelles sont les modifications dans la conception du chez-soi chez les individus involontairement relocalisés?
- Quels ont été les mécanismes utilisés par les individus pour s'intégrer dans leur nouvelle collectivité?
- Quelles peuvent être les stratégies de prise de décision qui tiennent compte des besoins et du vécu des personnes délocalisées?

La stratégie de recherche utilisée repose sur l'approche qualitative qui appelle l'interrogation d'une quarantaine d'individus ou de couples ayant perdu leur maison et tous leurs biens personnels lors des inondations de juillet 1996. Pour relier l'observation à l'explication, deux instruments de vérification sont retenus: l'entrevue semi-dirigée et la fiche signalétique. La réponse aux questions énoncées conduit aux

résultats suivants: en plus d'être affectés physiquement et psychologiquement par les conséquences directes du désastre et par les nombreuses difficultés qui y sont associées, plusieurs aspects de la vie personnelle, familiale, professionnelle et sociale des sinistrés ont été modifiés. a) Les itinéraires résidentiels (la majorité des sinistrés se sont relocalisés trois ou quatre fois avant d'intégrer leur résidence permanente actuelle) furent une source de tension très grande. b) L'intégration dans un nouveau quartier s'est principalement réalisée avec la participation de la famille et des amis, les nouveaux voisins étant souvent absents du processus. Pour les sinistrés, la vie dans un nouveau quartier signifie une rupture, voire un deuil: «Une séparation avec les amis, la perte d'un sentiment de sécurité, un changement dans la manière de vivre, des contraintes financières, etc.» c) La perte de «ce paradis [...] de ce beau coin du monde» appelle une nouvelle définition de l'habitat empreinte d'images ou de représentations plutôt négatives (sentiment d'étrangeté, nostalgie, endettement, pertes sentimentales, etc.). d) Finalement, afin d'informer et de guider les personnes pouvant subir d'éventuels préjudices liés à un désastre, les sinistrés émettent certaines suggestions. En outre, ils suggèrent aux victimes de prendre un certain recul avant de procéder à des démarches importantes. Si les bénévoles, pour leur part, doivent, en tout temps, manifester une attitude compréhensive et généreuse, les instances gouvernementales devraient, quant à elles, réduire les exigences bureaucratiques et administratives. Enfin, les sinistrés suggèrent d'étendre la période d'aide financière et psychologique.

TABLE OF CONTENTS

ACK	NOWLEDGEMENTS			
EXE	CUTIVE SUMMARY			
TAB	LE OF CONTENTS			
LIST	OF TABLES			
INTF	RODUCTION	1		
CHA	PTER 1 – LITERATURE REVIEW	4		
A.	Conceptual Definitions 5			
В.	Values and Bonding to One's Home	11		
	The Functions of the Habitat Elements of Bonding to One's Home	11 15		
C.	Difficulties Inherent in Involuntary Relocation	17		
D.	Gains and Losses related to Relocation			
E.	Impacts of Disasters on Personal Health			
	 Effects on Psychological Health Change in Physical Health Change in Family Life Changes in Social Life 	23 25 26 28		
F.	Loss of One's Home: Beyond Material Considerations	30		
G.	Factors which play a part in the Relocation Process	32		

СНА	PTER 2 – METHODS AND PROCEDURE OF ANALYSIS	35	
A.	Research Methodology		
B.	Population under study		
C.	Data Collection Instruments		
D.	Information Gathering	37	
CHA	PTER 3 – CHARACTERISTICS, POST-DISASTER HEALTH STATUS AND PRE- AND POST-FLOOD HOUSING CONDITIONS	38	
A.	Sociodemographic Characteristics of the Respondents	38	
B.	B. Physical and Psychological Health Status of the Respondents		
C.	Impacts of the Flood on the Disaster Victims' Lives	42	
	 Disaster Victims' Feelings Disaster Victims' Emotional Reactions Major Stresses Experienced 	42 45 48	
D.	Characteristics of the Current House and the House Occupied at the Time of the Floods	51	
	 Age of Residence and Length of Occupancy Size of the Property Size of the Houses and Number of Floors Exterior Finish Property and Market Value of the Residences and Indebtedness Losses Incurred Material Losses and Compensation Received 	51 52 53 54 55 57 58	
СНА	PTER 4 – RESIDENTIAL ITINERARIES OF INVOLUNTARILY DISPLACED FAMILIES	59	
A.	Disaster Victims' Situation at the Time of the July 1996 Floods	59	
В	Evacuation	62	

C.	First Shelters	66
D.	Victims' Various Housing Moves: Major Locations used and the Reasons for their Use	68
E.	Other Accommodation Phases	71
F.	Advantages and Disadvantages of the various Accommodation Sites	75
G.	Return to a Permanent Residence	80
H.	Difficulties and Obstacles encountered during Relocation	84
I .	Impact of the Disaster on the Victims' Health	88
CHAI	PTER 5 - THE CONCEPT OF HOME FOLLOWING A DISASTER	94
A.	Images of the Former Residence	94
В.	Images of the Current Residence	99
C.	Feelings experienced regarding the Former and New Residence	104
D.	Advantages and Disadvantages of the Former and New Living Environment (House, Land and Neighbourhood)	109
CHAI	PTER 6 - INTEGRATION INTO A NEW NEIGHBOURHOOD	120
A.	Reasons prompting the Disaster Victims to Change Neighbourhood or Municipality	120
B.	Disaster Victims' Feelings about being forced to Change their Living Environment	123
C.	Integration Mechanisms used by the Disaster Victims	125
D.	Difficulties encountered by the Disaster Victims who moved to another Neighbourhood or another Municipality	127
E.	Feelings About the Former and New Environments	130

•

CHAPTER 7 – DISASTER VICTIMS' RECOMMENDATIONS	133
HIGHLIGHTS	141
CONCLUSION	146
BIBLIOGRAPHY	151
APPENDICES	159

.

LIST OF TABLES

Table 1:	Subject Distribution by Age, Marital Status and Gross Family Income (presented as a percentage)	39
Table 2:	Subject Distribution According to Improvement or Decline in Health Status since the July 1996 Floods (presented as a percentage).	40
Table 3:	Major Changes in the Victims' Health Status and Professional Life since the July 1996 Floods (presented as a percentage)	41
Table 4:	Consequences of the Floods on the Victims' Psychological Health	42
Table 5:	Subject Distribution by Age of Current and Former Residence and Length of Occupancy of the Dwelling (presented as a percentage)	52
Table 6:	Subject Distribution according to Size in Square Feet of their Former a Current Property and House (presented as a percentage)	nd 53
Table 7:	Subject Distribution According to the Number of Rooms in the Former and Current House (presented as a percentage)	54
Table 8:	Subject Distribution According to the Exterior Finish of their Former and Current Residences	55
Table 9:	Subjects' Average Mortgage Loan Indebtedness Ratio Before and After the Floods (presented in Canadian dollars)	57
Table 10:	Number of Moves made according to the Number of Respondents (presented as a number)	68
Table 11:	Accommodation Resources used during the First and Second Relocation Phases (presented as a number)	74
Table 12:	Advantages and Disadvantages of the various Types of Accommodations used during the First Relocation Phase	ion 76
Table 13:	Advantages and Disadvantages of the various Types of Accommodation Resources used during the Second Relocation Phase	ion 78
Table 14:	Major Difficulties of an Intrinsic Nature encountered	86

Table 15:	Major Difficulties of an Extrinsic Nature experienced by the Victims	87
Table 16:	Frequency of References to Themes of the Meaning of a Home for the Former Residence	99
Table 17:	Feelings experienced by the Victims regarding their Former and New Residence	106
Table 18:	Frequency of the Elements Appreciated in the Former and New Residences	113
Table 19:	Frequency of the Disadvantages of the Former and New Residences	116
Table 20:	Elements Appreciated in the Former and New Properties	117
Table 21:	Frequency of the Disadvantages of the Former and New Properties	118
Table 22:	Frequency of the Elements Appreciated in the Former and New Neighbourhoods	118
Table 23:	Frequency of the Disadvantages of the Former and New Neighbourhoods	119
Table 24:	Factors facilitating and limiting the Smooth Integration into a New Living Environment	128
Table 25:	Major Suggestions and Proposals for Disaster Victims	134
Table 26:	Major Recommendations made by Disaster Victims to Aid Agencies	137
Table 27:	Major Recommendations made to Government Authorities	139

INTRODUCTION

In July 1996, Saguenay—Lac-Saint-Jean experienced one of the greatest natural disasters in recent years. More than 7,000 families saw their neighbourhood or their home slide away from beneath their feet. In all, 3,000 residences were destroyed or heavily damaged. The rivers became enraged and caused panic; 16,000 people found themselves without shelter for more or less long periods. After such an extensive natural disaster, many people seek assistance to house themselves, to clean their belongings or to rebuild their home.

The loss of one's principal residence in unexpected circumstances remains a difficult situation. The victims face many challenges. Some will be able to find a new residence in a neighbourhood that meets their needs and their hopes. For thousands of others, there will never be a way to make up for the physical and emotional losses and it will be difficult for them to find the ideal location to rebuild their own home.

This research report was designed to help the responders, working in paid and volunteer positions, and the public authorities who have to take action in crisis and post-crisis situations, better understand what the disaster victims experience during their relocation process. Data was collected from 40 families who lost their home

during the July 1996 floods. The research was conducted in order to answer the following questions:

- What were the residential itineraries of the families involuntarily displaced as a result of the July 1996 floods?
- What were the mechanisms used by the individuals in order to become integrated into their new community?
- What changes occur in the concept of a home among the individuals had to relocate involuntarily?
- What decision-making strategies can take into account the needs and experience of the displaced persons?

The first part of this research report presents major scientific documents which deal with the impact of the flood on the concept of a home and with the relocation phases. This review was performed within the framework of a multidisciplinary approach in which the writings produced refer to the values and the bond with the home, the impacts of the disasters on the individuals' health and on the personal, social or community factors which come into play in the family relocation process.

The second chapter provides information concerning the methodology used, the population reached and the data collection tool used in order to answer the research questions. The next chapter presents the respondents' major sociodemographic characteristics and provides information on the disaster victims' housing conditions before and after the floods.

The subsequent chapters present and discuss the research results, submit the major recommendations made by the respondents to the various players involved in a disaster: victims, community groups, public and semi-public organizations, and describe the highlights of the survey.

CHAPTER 1

LITERATURE REVIEW

In Canada, the interest in researching disasters, whether natural or technological, has recently arisen. However, with the floods in the Saguenay and Manitoba, and the ice storm that paralyzed the Greater Montreal area and outlying areas in January 1998, a few researchers were interested in understanding the causes and effects of those events on the individuals, stakeholders and land-use management techniques (Auger et al., 1997; Maltais et al., 1998; Proulx, 1998).

It must be noted, however, that disasters and their repercussions on personal and community health have been widely studied in the United States (Aptekar, 1994; Baum et al., 1992; Bolin, 1982; Canino et al., 1990; Erickson et al., 1976; Escobar et al., 1992; Green et al., 1994; and Freedy et al., 1992). The research addresses above all the repercussions of the disasters on the victims' psychological health. Post-traumatic stress disorder, characterized by a group of specific symptoms which jeopardize the individuals' personal, family, professional and social functioning, has been widely studied and documented (Adams and Adams, 1984; Baum et al., 1992; Bromet and Dew, 1995; Canino et al., 1990; Duval et al., 1985, Garrison et al., 1995).

Few researchers have paid specific attention to the victims' relocation process. Yet, the alteration of the habitat and relocation, whether voluntary or not, often produce substantial negative repercussions on the individuals, their family members and the entire community.

A. CONCEPTUAL DEFINITIONS

Disasters, whether brought about by natural causes (hurricanes, tornadoes, storms, floods), or technological or human causes (building collapses, dam breaks, famines, etc.) can be studied from many perspectives. Some researchers adopt a global and holistic approach (Barton, 1969; Turner, 1976), while others use more psychological or sociological perspectives (Lechat, 1979; Kingston and Rosser, 1974; Logue et al., 1981).

Thus, Barton (1969) recalls that a disaster reflects a brutal change or a breakdown in the living conditions which members of a social system have come to expect. The breakdown causes a significant situation of collective stress. Turner (1976) associates a disaster with an event which threatens a society or one of its self-sufficient sub-divisions. This event results in undesirable consequences which stem from an interruption in the usual social order or from a lack of means for ensuring it. This situation is deemed culturally unacceptable by the population. Other researchers also associate disasters to collective stress situations of which the repercussions on

individuals can be analyzed by considering and analyzing the elements which disrupt the entire social system (Kingston and Rosser, 1974). Along the same line of thinking, Lechat (1979) suggests that, during a disaster, communities' ability to adjust or adapt is greatly altered in the face of the excessive disruptions to which they are subjected.

From the perspective of understanding the effects of disasters on a person's psychological health, Quarantelli (1985) identifies eight dimensions related to the characteristics of the disaster, to the degree of preparedness for coping with it, as well as to the ability of the individuals and the community to respond or adjust to it. Lazarus and Cohen (1977) note that the suddenness of disasters constitutes the major cause of the stress that affected individuals or groups have to manage in such circumstances. Ten dimensions which can help assess the effects of disasters on psychological health are also proposed by Wilson et al. (1985). The authors suggest that different variables act on that level: the extent of the threat to life, the degree of mourning and loss of a significant other, the suddenness of the impact, the duration of the traumatic event, the evacuation of the home or community, the potential for recurrence, exposure to death and destruction, the role of the person who experiences the traumatic event, the proportion of the community affected by the traumatic event and the organizational responses to it. The sociocultural context into which the disaster falls also seems to be an element which must be considered in assessing the repercussions on psychological health (Bromet and Dew, 1995).

The need to consider disasters not as single facts, but rather as a series or an accumulation of disruptive or destabilizing events, is also put into perspective in the works produced. There are situations in which, following an initial impact, individual crises inherent to personal (physical and psychological), social or environmental factors can emerge as an extension (Belter and Shannon, 1993; Murphy, 1986; Rangell, 1976; Bolin, 1985). Disasters can also be perceived as fragmented episodes, according to the different phases or stages that characterize them (Tyhurst, 1951; Powell and Rayner, 1952; Raphael, 1975; Golec, 1983). The duration of each of the stages is variable and they lead, as much for the individuals as for the communities affected, toward a global or partial rehabilitation.

At the level of the individual, Ollendick and Hoffman (1982) refer to the NIMH (National Institute of Mental Health) in order to describe the phases victims go through. The first constitutes the "heroic" phase which usually emerges during the first week following the disaster; the second, called the "honeymoon", usually begins the following week and can last up to six months; that step is followed by the "disillusion" phase which can last from six months to two years, and finally, the "reconstruction" phase is undertaken after a year or two. Concerning the community, our example is based on the recent description provided by Aptekar (1994). He suggested a very explicit breakdown of the stages related to disasters. The first stage encompasses all the actions and interventions in preparation for the occurrence of such events (responder training, implementation of emergency plans, legislation, etc.), the second stage is

focused on the reaction to the impact (immediate response, evacuation, physical impact, psychological reactions, etc.), and the last stage requires individual and community rehabilitation (reconstruction, relocation, healing, etc.).

As the result of a disruptive social event such as a disaster, hundreds or thousands of people can, as circumstances dictate, be displaced from their homes for variable periods. If it is a matter of the home's substantial or complete destruction, some will never return to it. Protecting and enabling the recovery of the victims' psychological health is a major challenge, at both the individual and community level. Fullilove (1996) was interested in the psychological process that is likely to be affected by geographic displacement. The psychology of place, an approach drawn from the geographic, psychological, anthropological and psychiatric disciplines, is an emerging research field. It allows us to verify the bond between individuals and their intimate surroundings, then to understand the various psychological processes that may be affected by an environmental disturbance.

Three key psychological processes bind individuals to their environment: bonding, familiarity and identity. The psychology of place suggests as a preliminary hypothesis that everyone hopes for a comfortable environment in which to live. The bond we can feel toward a place is different from the bond which we may feel toward a person. It is a matter of mutual commitment, between people and the place they love, to take care of or look after each other as one should. Familiarity relies on a process

through which people develop a precise cognitive knowledge of their surroundings.

Lastly, the identity of the place suggests that a sense of self is drawn from the places in which individuals live throughout their life. Each of these psychological processes risks being altered by a geographic move and by the problems that can subsequently emerge, such as nostalgia, disorientation and alienation.

In practical terms, for our text, a disaster can be understood as "an event which is situated outside the everyday world or experience, which affects a large number of people and causes serious enough damage to give rise to demands or present threats which surpass the resources and capabilities to adjust" [tr] (Belter and Shannon, 1993). According to certain authors, this event has a relatively sudden and identifiable onset (Rubonis and Beckman, 1991), then it is concentrated in time and space (Lazarus and Cohen, 1997; Turner, 1976). Nevertheless, this emergency situation requires, according to Emergency Preparedness Canada, an immediate and extraordinary response to protect people's lives and limit the damages done to property or to the environment (1997).

Emergency Preparedness Canada includes major floods among emergencies.

Moreover, floods represent 50% of all the disasters documented in Canada, and

Howard (1996) recalls that, because of their frequency, floods are the most common
type of disaster which occur throughout the world, specifying that they represent 40%
of all disasters recorded. In Quebec, the ministère de la Santé et des Services sociaux

(1994) defined a flood according to the following terms: "[...] the spreading of water brought by the rising waters and not absorbed by the ground" [tr]. The Quebec statutes further identify a disaster as:

... a grievous event, real or imminent, caused by a fire, an accident, an explosion, a natural phenomenon or a technical failure, whether or not as the result of human intervention, on such a scale that it causes or is likely to cause the loss of human life, unsafe conditions or personal injury, or extensive damage to property. [tr] (*Gazette officielle du Québec*, 1996, Chapter P-38.1)

B. VALUES AND BONDING TO ONE'S HOME

Disaster victims can find themselves confronted with involuntary relocation or with alterations or substantial changes to their home, their neighbourhood or their community. To better grasp the consequences of those events on individuals' physical, psychological or social health and on the concept of home, it is essential to understand what the dwelling means for the individuals and to analyze, based on scientific documents, the individuals' residential itineraries according to the difficulties they encounter during the major stages of their relocation.

1. The Functions of the Habitat

The functions of the habitat are many and can be grouped according to the needs of individuals. Those needs are physiological, psychological, cultural and social in nature and they have, if they are unsatisfied or neglected, a negative impact on the physical or mental health of the individuals as well as on their actual or desired quality of life (Chombart de Lowe, 1965; Gollant, 1984).

Five specific housing functions seem to emerge: individual protection, personal identification, socialization and social integration, behavioural orientation and education and, lastly, the extension or continuation of the individual.

Protecting an individual or group of people seems to constitute the primary function the dwelling must satisfy. According to Grunfeld (1970) and Chombart de Lowe (1965), the dwelling must constitute a refuge against climate constraints and the elements from which one wishes to escape, such as for example, noise, odours and even undesirable people.

A more complex and thorough definition is, however, suggested by the housing concept. In addition to the "sheltering" role it plays, certain researchers see it as <u>an element which forges the very identity of its inhabitants</u> (Chombart de Lowe, 1965; Lawrence, 1987; Rowles, 1983; Caouette, 1995; Becker, 1977; Ursano, 1964).

In their review of literature on social housing, Morin, Dansereau and Nadeau (1990) define basic housing functions according to the following terms:

A dwelling is not only a shelter that protects against natural elements and in which it is possible to feed oneself, rest and sleep, but it is also a place for personalization and socialization where the individual symbolically marks his presence in society while also integrating into it, which refers back to the issues of appropriating the inhabited space, of socialized domestic consumption, of neighbourly relations and neighbourhood life. Housing therefore concerns individuals' physical health just as much as their mental health. [tr] (Op. cit., p. 1).

Steinfield (1982) describes a mutual relationship between the individual and his or her dwelling; the identity created by the place of residence comes from the meaning

that the inhabitants of the premises give to it. There is, according to the author, an "identity-forming mechanism" associated with certain observations: a meaning that varies from one group to another, the dwelling's influence on the expansion of the social universe and the existing sub-culture, the use of the residence as a symbol of self, the status changes related to changes of residence which influence the identity and the identity-compliance aspect a specific residence may have.

Rapoport (1982) suggests that the meaning of the place of residence is established in non-verbal communication. In fact, a residence location or environment is formed of indices through which the identity of those who inhabit it is revealed. Those indices are related to the three components of a residence: the fixed elements which refer to the architectural framework, the semi-fixed elements which constitute the furnishings, the decorative elements, etc. and the informal non-fixed elements which emerge on the one hand from the individuals themselves, that is their non-verbal behaviour, body language which reveals their attitudes, etc., and, on the other hand, the positive or negative elements associated with the maintenance of the premises, landscaping, etc.

Housing also has a function which is related to the socialization of individuals. For some, the most perceptible information coming from the place of residence is the social class to which the residents belong as well as their underlying life style (Grunfeld, 1970). Becker (1977) adopts the same line of thinking and maintains that

the place of residence communicates information to individuals and serves as a personality reference. That "social tool" function the residence assumes can become so important, through the information it transmits to the social circle, that it very often results in sacrificing the residence's efficiency to the benefit of the image associated with social prestige. In fact, in order to support or strengthen their identity, some individuals or groups of individuals will attach meaning to the materials, objects and site arrangements in order to be associated or integrated into a given social class. The established housing standards can also create or stimulate social interaction between the members of a class formed in that way.

The orientation of individual and social behaviours is also another function that can be attributed to housing. The built environment, being one of a person's best channels of communication, Rapoport (1982) suggests that the indices contained within the dwelling, and revealed to those who enter it, orient the behaviours to be adopted in such a place. For Gollant (1984), this housing influence on behaviour is reflected by training or even by the reinforcement of attitudes or feelings one has about oneself. The attitudes are generally related, among others, to self-image, self-continuity and condition, and to the satisfaction with life. Along the same line of thinking, Chombart de Lowe (1965) recalls the educational function of housing by proposing that it stimulates individuals to take advantage of it in a certain way by using it, for example, in accordance with its layout. Approaching this viewpoint, Rapoport (1982) suggests the "enculturation" function, which associates the place of residence with a learning

medium comprising several properties. The place, when it is understood or learned, is integrated into a memorization mechanism related to the way of acting in the said place. That "enculturation" can occur at any age in life and falls within a continuum throughout the person's life.

Lastly, housing can also posses a function of extension or continuation of the individual (Rubinstein, 1989). That function emerges when some elements of the place of residence are selected, then amplified, and finally accorded priority over the other elements. Furthermore, they reflect a direct and conscious portrayal of certain central aspects of the personality of the inhabitants. Rowles (1983) also approaches this function from another dimension and specifies the temporal aspect that emerges. The author proposes that, by frequenting the same places, over the years, individuals come to feel that they are an integral part of them and those individuals may even go as far as considering them as an element of themselves. Fried (1963) perceives the extension or continuation function of housing in a different fashion. He suggests that this function applies more to the territorial level or the housing area. Hence, the neighbourhood, for example, could be seen as an extension of the house and, subsequently, contribute to developing a feeling of belonging.

2. Elements of Bonding to One's Home

There is an obvious link between the housing functions and the elements that stimulate bonding to one's home, the dwelling constitutes the reflection of the individual and contributes to self-esteem (Becker, 1977). The bonding to a dwelling, to one's home, emerges in the way that the residence meets the needs of the individual or the family. Beyond the use we can make of it, it allows the individual to attain self-actualization, integration or emancipation. It has, moreover, an emotional dimension which gives it great value in the eyes of its occupants (Becker, 1977). For Caouette (1995), the bond with a home is manifested in the form of transactions between people and their dwellings. That exchange derives its meaning, which can be defined as emotional, in the significant phases or slices of life which we associate with it. Those life stages, as well as the establishment or reinforcement of deep bonds between its inhabitants or the neighbourhood which stem from it, contribute to developing the feeling of belonging to a community.

That emotional element, constituted by the bond to one's home, can also be a matter of the residents' status with respect to their ability to assume the costs inherent in occupying it. A citizen who lives in an older neighbourhood, for example, where the housing is less recent or luxurious, or even of lower quality, will feel more satisfaction regarding a home that satisfies his situation or meets his financial capacity, rather than opting for housing in a newer neighbourhood where too high a cost will create a limitation on the bond (Grundfeld, 1970).

Certain authors suggest that bonding is also related to the dwelling's possibilities of contributing to the personal and identity dimension (Rowles, 1983; Howell, 1985). The bond with a place is not necessarily constant over time and its intensity can vary from one individual to another. It may even be sacrificed to the benefit of greater physical or psychological comfort, according to Howell (1985).

C. DIFFICULTIES INHERENT IN INVOLUNTARY RELOCATION

Some authors (Haas et al., 1977; Fried, 1963) suggest that the bond with the home can promote, or conversely, constitute an obstacle to the relocation process. Thus, fewer difficulties may be encountered by the disaster victims who abandon a habitat for which they had little attachment, while the individuals who have a strong feeling of belonging for their former home and environment will more strongly feel the negative effects which emerge in the form of depressive symptoms or deep sadness.

Other elements or factors also seem to play a role in the difficulties experienced during a relocation. Fried (1963) suggests that the social class to which the victims belong influences the difficulties encountered during the relocation. According to the author, a high social status corresponds to a lower probability of being confronted with significant crises.

If the initial moments of the disaster represent a shock and are experienced as such by the victims, relocation can also be felt as a continuation of it. The many displacements which can arise during evacuation along with the subsequent changes of residence that can occur constitute some difficult stages in the relocation process (Gleser et al., 1981). Trainer et al. (1977) note that as a result of a flood, more than half the disaster-stricken families in Rapid City (U.S.) moved twice during the first year following the disaster and that 32% of them had done so three times in the same timeframe. According to Haas et al. (1977), who also commented on that catastrophe, the temporary relocations represent constraints on the well-being of disaster victims. Among the most important, the overpopulation due to sharing a single residence with other occupants caused the most discomfort.

Another source of immediate dissatisfaction, but one which can have long-term consequences, proves to be relocation to a new habitat which is more expensive than the former. According to the Trainer et al. (1977) study, a frequent occurrence is relocated families who see the share of their housing budget increase, which creates the necessity for a second source of income. Moreover, Steinglas and Gerrity (1990) specified that this additional financial burden contributes to increasing the number and intensity of the problems encountered in the relocation process. Krug et al. (1998) also suggest that the rise in suicide cases among flood victims, in comparison with the rates observed among the victims of other disasters, could have been caused by reinstallation indebtedness.

As for Milne (1977), his book presents a study of the results of the residential itinerary of three categories of victims in the same community which was hit by a cyclone. Surveying non-evacuated persons, evacuated subjects who have reintegrated into the community and victims who evacuated without returning to their former home, he illustrated the point that the subjects who belong to the third category suffered comparatively greater psychological and physical health effects than the two other groups in the study.

The residential itinerary also becomes a source of difficulties through its effect on the victims' economic, social and family activities. Thus, Trainer and Bolin (1976) demonstrated that two years after a flood, the lack of availability of the individuals and the financial constraints caused by the relocation were still affecting the individuals and their families. Furthermore, the victims' satisfaction with life and living standards, evaluated subjectively by the victims, recorded a noticeable decrease; as it dropped from 22% to 17%.

In order to minimize the negative effects of the involuntary relocation, certain principles or conditions must be respected, so as to ensure the victims' sense of continuity in their life during and after the relocation. By so doing, some actions and policies promoting reintegration into the former neighbourhood, by seeking a similar spatial framework and the presence or availability of professional support trained with a

view to managing the difficulties associated with relocation (Fried, 1963), tend to maximize the probabilities of success during this critical stage. O'Malley (1978), by using the theory of belonging to a place, made room for the development of a new disaster reaction model, that of resistance-compliance. According to the author, when the values and other considerations of the residents are not taken into consideration in the public authorities' initiatives, actions or policies, reconstruction work is less effective. Conversely, reconstruction policies have a greater probability of producing fruitful results when the victims play an active role in the community's recovery operations.

D. GAINS AND LOSSES RELATED TO RELOCATION

When people lose their home as a result of a disaster, the losses are greater than the gains recorded. However, certain gains may seem perceptible during such a dramatic situation. Furthermore, what some victims see as losses will be seen as gains by others. Along this line of thinking, some researchers (Raphael, 1975; Fried, 1963) advanced the hypothesis that the size of the crisis that results from the loss of the living environment is relative to the meaning and importance it was given. Ursano et al. (1994) agree with that hypothesis, suggesting that, from that perspective, the evaluation process plays a major role. The perception of the event as compared with the damages recorded, the threat or the challenge it constituted, or even the impact of

the event on the future, are considerations that must be taken into account in the way of evaluating the gains or losses. According to Haas et al. (1977), for example, an increased feeling of safety in a new domicile may constitute a measurable gain.

The economic or financial dimension of the losses suffered at the time of the destruction of one's home and the relocation is obvious. With respect to financial losses, Steinglass and Gerrity (1990) mentioned that people who have more financial resources lived through the home loss and relocation ordeal more easily. The loss of the contents of the home, or the personal effects and mementos, also affects the victims deeply and makes the re-appropriation of a new home more difficult. As such objects are signs of the bonds between persons (the occupants or external relations) and recalling important moments of the individual's and family's experience, those objects had allowed transforming a simple dwelling into a personalized home. The conquest of a new home can therefore not be removed from a re-appropriation of the key elements constituted by the personal objects to which one attaches personal meaning. The losses are also situated in a context which goes beyond the victims' immediate environment. Fried (1963) recalls that the sadness felt does not come solely from the housing loss, but from all the external physical surroundings: the neighbourhood, the layout of the setting and the dynamics which inhabit them.

The variable which constitutes the loss of resources at the time of a disaster, including the home, also has a very great influence on psychological well-being. Rossi

(1983) mentions that flood victims incur three times as many financial losses than hurricane or earthquake victims. Furthermore, research tends to show that the material losses constitute a better predictor of long-term psychological distress than the intensity of the exposure to the event (McFarlane and De Girolamo, 1996). According to Pickens et al. (1995), the seriousness of the property damage is linked to the severity of the post-traumatic symptoms. According to the same perspective, investment in the property constitutes a variable which has a positive effect on the degree of the psychological impact in the aftermath of a disaster (Price, 1978). The people who are the most exposed to the damage sustained by the home and the external physical environment, in this instance women, also represent a risk group at for post-disaster psychological problems (Logue et al. 1981).

E. IMPACTS OF DISASTERS ON PERSONAL HEALTH

The impacts of disasters on personal health are numerous and vary according to the nature (extent, intensity and duration) of the catastrophe. They include traumatizing physical and psychological injuries and deaths. Most of the catastrophes, whether natural or technological, have an enormous potential for destruction, injuries and various personal, economic and social carry-over effects. On this topic, the ministère de la Santé et des Services sociaux (1994) and Health and Welfare Canada (1990) mention that the individuals who sustain major losses and suffering have to

adjust to changes in their existence and overcome personal, family or social crises which can have temporary or permanent psychological after-effects. The loss of one's home, fear for one's own life or that of a loved one, the many upheavals caused by repairs to one's property, as well as the numerous contacts to be made with aid organizations can affect the victims' health. Problems of a psychological, family or social nature can therefore be many and can last for a very long time (Green et al., 1992).

1. Effects on Psychological Health

Several variables affect the degree of the disaster victims' psychological deterioration. Among those of which certain aspects are potentially interrelated with the home, we mention, among others, the seriousness of the damage sustained by the home (Pickens et al., 1995; Nolen-Hoeksema and Morrow, 1991), the loss of financial or personal resources and possessions (Freedy et al., 1994, 1992; Kaniasty and Norris, 1993; Norris and Uhl, 1993; Yates, 1992; Dunal et al., 1985; Penick et al., 1976), dissatisfaction regarding the financial aid received (Abrahams et al., 1976), the degree of deterioration and damages sustained by the community (Kent and Francis, 1995; Kaniasty and Norris, 1993; Lifton and Olson, 1976; Titchener and Kapp, 1976). The fact of being relocated also strongly affects the distress experienced by the victims

(Raphael, 1986; Gleser et al., 1981; O'Malley, 1978; Milne, 1977; Fried, 1963; Wayne, n/a.; Trainer et al., 1977).

The researchers have also shown in their works that certain groups or categories of people run a greater risk of being affected psychologically. Olson (1993) suggests that the children, the elderly and the people who sustain large material losses have a greater chance of developing psychiatric problems following a disaster, while Crabbs and Heffron (1981) specify that, in addition to children and senior citizens, people with low incomes and those who have a history of emotional instability are more vulnerable to developing a post-disaster psychopathology. Bromet and Dew (1995) mentioned recently that the persons affected at close range, or more directly exposed, as well as women, seem to be more likely to show psychological morbidity during the immediate aftermath of a disaster.

Exposure to a major flood may, for some people, constitute the most traumatic event of their life (Powell and Penick, 1983) and require types of treatment or therapy which extends over variable periods of time (Church, 1974). Certain researchers have also suggested that in the communities affected by the major disasters, the incidence of depressive ailments increases by 350%, and the incidence of unspecified neurotic ailments increases by 1,100% (Kingston and Rosser, 1974).

2. Change in Physical Health

The specific nature of the symptoms and pathologies mentioned by the researchers alters not only the victims' psychological health, but also compromises the individuals' physical health. Many researchers have noted, for example, that persons suffering from post-traumatic stress syndrome or depression following a collective trauma developed hypertension, duodenal ulcers or suicidal thoughts (Krug et al., 1997; Mellman et al., 1995; Green et al., 1985; Breslau and Davis, 1992; McFarlane et al., 1994). The victims also report suffering more frequently from arthritis, bronchitis, migraines and gynecological problems (Breslau and Davis, 1992). Flood victims are also often afflicted with muscular or skeletal injuries and they say they suffer regularly from nausea and chest pain (Faupel and Syles, 1993). Disaster victims are of the opinion that their physical health status is worse than that of the general population (Melick, 1985). Furthermore, disaster victims significantly increase the frequency of their use of health services and medication (North et al., 1989; Auger et al., 1997; Freidman and Schnurr, 1995). The suicide, leukemia, cancer, lymphatic disease and spontaneous abortion rates also appear to be higher in the communities affected by a flood (Krug et al., 1997; Janerick et al., 1981; Centres for Disease and Prevention, 1993).

Floods, through the elements that characterize them and affect the hygiene and safety of the premises (water infiltration and stagnation, excess humidity, etc.), can also

promote infectious diseases due to the contamination of water sources, and the presence of insects or vermin. Moreover, air quality risks being affected by the bacteria or moulds which remain in the flooded homes.

3. Change in Family Life

While some researchers conclude that the bonds between affected individuals are reinforced and an emergence of new types of solidarity which are demonstrated by the absence of marital or family disruptions (Ollendick and Hoffman, 1982), the stability of divorce rates (Aguirre, 1980) or a rise in the stability of marriage (Robins et al., 1986), some suggest a deterioration in the couple or family relationship dynamics. Hence, Erickson (1976) stated that the Buffalo Creek floods that occurred in western Virginia in 1972 had influenced breakdowns of marriages, while Powell and Penick (1983) made mention of a deterioration in the relationships between the members of families who were affected by the floods in Missouri.

Ursano et al. (1994), using the family systems theory, attempted to explain the problems raised within the family following a disaster. Using the hypothesis that the family constitutes an open system which maintains its internal cohesion through continual exchanges and a flow of information with the environment, they suggested that poor family functioning may arise as the system which the family constitutes

becomes incapable of adjusting to the changes experienced during a relocation process. The adjustment difficulties may also be explained, according to Becker (1977), by the victims having to face a new and strange environment. For the author, the physical environment is an instrument of social change which transmits non verbal messages to individuals. At the time of an abrupt change of environment, the inability to decode messages coming from the new environment creates a maladjustment that is reflected in individual and social conflicts which can only be overcome if the occupants manage to decode the messages which are transmitted.

Trainer and Bolin (1976) specified three types of constraints which families in a post-disaster period must face: material constraints related to the destruction of the home and immediate environment, time constraints pertaining to the forced delays for returning to normal family activities and constraints which involve the re-appropriation of the family meaning (the re-establishment of the family's normal and familiar dynamics). Along that line of thinking, Raphael (1986) recalls that the stress caused by relocation affects the couple relationship and that the disruption of family rituals can arouse irritability and insecurity in the children, while, in the adolescents, delinquent withdrawal behaviours may be seen. The stress of the disaster can also be associated with the appearance of violent behaviour within the family (Adams and Adams, 1984).

Certain family variables or factors also seem to have an effect on the degree of disturbance following a disaster. The presence of young children (Dunal et al., 1985;

Drabek and Stephenson, 1971) increases the weight of the responsibilities during this crisis period, as well as the supportive role which the spouses and single parents have to play (Solomon et al., 1987; Green and Lindy, 1994). A relocation and reconstruction context also favours family discouragement because of the financial problems, the physical efforts expended and the work changes it may cause. The feeling of having been deceived also influences the level of distress experienced (Crabbs and Heffron, 1981).

4. Changes in Social Life

The negative aspects of disasters also have repercussions on everyday activities such as work, studies and social activities. For disaster victims, disruptions in the daily activities constitute a major stress factor (Nolen-Hoeksema and Morrow, 1991) and can interfere with their customary functioning (Yates, 1992) and risk affecting mental health later on in life (Tobin and Ollenburger, 1996; Canino et al., 1990).

During a study on flood victims, Crabbs and Black (1984) observed that the disaster victims' professional activities had been disrupted. The authors noted an increase in the difficulties encountered at work which could moreover lead to job loss. McDonnell et al. (1995) arrived at similar conclusions, as they determined that 17% of the families mentioned a family member's job loss as a result of hurricane Andrew.

Tobin and Ollenburger (1996) also identified permanent or temporary job loss as one of the predictive factors of post-traumatic stress disorder in flood victims. The ability to perform in one's job or in tasks requiring a certain level of responsibility may also be negatively affected (Baum et al., 1992).

Everyday activities as a whole also present a socializing dimension which may be affected during a disaster and in its aftermath. Lifton and Olson (1976) focused on that aspect and observed that the disaster victims' socialization had been affected for a period which could last up to at least 14 months after the dam failures and the floods which affected the inhabitants of Buffalo Creek. A significant number of victims (11%) noted moreover not having adjusted socially after the disaster. The establishment and maintenance of interactions with the members of the extended family and the neighbourhood are also socializing dimensions that risk being affected in the presence of disasters and during relocation. For example, following the floods, the families in Rapid City (see Trainer and Bolin, 1976) mentioned a reduction in the frequency of visits to neighbours and relatives in respective proportions of 41% and 9%. increase in the traveling distances as well as the scattering of families were the major factors which contributed to this state of affairs. In this same population, a reduction in the time allotted to recreation was also observed, two years after the event, due to the efforts invested in reconstruction.

F. Loss of One's Home: Beyond Material Considerations

The material damages and losses sustained, including those noted to property, appear to be a major component of the stress experienced by disaster victims. They also play a dominant part in the degree of the short-term and long-term psychological disturbance. The loss or major alteration of the home or the community creates not only a state of disorganization and disorientation in the victims, but for many it also corresponds to the annihilation of part of their life, a bereavement for the years of effort invested in building their home, a way of life and the construction of a social universe.

Material and financial losses, as well as the damages sustained by the home, are the stress factors which are most often mentioned among disaster victims (Nolen-Hoeksema and Morrow, 1991; Penick et al., 1976). Tobin and Ollenburger (1994) also observed higher stress among subjects having sustained this type of loss as compared with a group that had experienced the same event but without sustaining losses. The strength of the blow is also a variable to be considered in assessing the psychological disturbances related to the material damages sustained. Freedy et al. (1994) demonstrated that the people who had faced more material losses albeit to a lesser magnitude, were more inclined to report greater distress than those who were subjected to a more intense impact but who had sustained fewer losses. Freedy et al. (1992) initially identified the loss of resources as an important element in the risk of developing psychological distress following a hurricane. Other variables which may

have an effect, and pertaining to property loss, have also earned the interest of some researchers. Thus, Phifer and Norris (1989) noted psychological consequences spanning a longer time period when the individuals were exposed to a significant degree of community devastation (two years) as compared with personal property loss (less than one year).

Certain subjective factors also enter into the determination of the psychological effects on a population which is affected by a disaster. It has thus been suggested that the importance accorded to what was destroyed or lost as well as the subjective evaluation of the damages that the person affected by the flood makes may, for example, enter into consideration in the assessment of the psychological impacts (Houston, 1987; Raphael, 1975). The destruction of many social symbols also corresponds to an identity loss for the victims. The loss of personal mementos, passports, birth and marriage certificates, photographs or various documents contributes to the feeling of depersonalization (Raphael, 1975). The disappearance of documents related to the professional activity and the legal validity of the possessions could also create difficulties in the continuity of work-related activities and the financial recovery of the losses.

Losing one's home also means losing one's security, the home being a symbol of continuity and identity for its occupants. Steinfield (1982) recalls that the home, its layout and the changes made to it over time correspond to expressions of life changes

or specific life events (marriage, birth, retirement, etc.). Changing residence in a disaster context also reflects a change in status according to which one often becomes a newcomer. The loss of security constitutes, moreover, a large upheaval which can be magnified by the physical characteristics of the new environment to which one must adjust (Rowles, 1983).

Besides the objective losses mentioned by the disaster victims and the bereavement they experience, they have to begin the process of adjusting to their new situation. They must, through the many efforts allocated to reconstruction and re-establishment, confront feelings of powerlessness, anger and the idealization of the home left behind (Fried, 1963). Feelings of envy, jealousy and guilt can also be observed among the victims; moreover, instability and disorientation are frequently mentioned as resulting from the numerous bureaucratic problems associated with reconstruction and relocation (Raphael, 1986).

G. FACTORS WHICH PLAY A PART IN THE RELOCATION PROCESS

A core success element in the relocation framework seems to depend on a re-appropriation of a home suiting the needs and hopes of disaster-stricken individuals and families. Adequate monetary assistance also seems to be a significant factor in post-disaster rehabilitation (Haas et al., 1977). Along this line of thinking, Sowder

(1985) mentions that choice and congruence, in relation to residential situation possibilities, constitute a critical link between the state of health and relocation. Some positive changes can thus be noted if the relocation corresponds to a housing improvement or an environmental integration deemed better by the persons involved (Ollendick and Hoffman, 1982; Wilner et al., 1962). The resolution of the crisis constituted by the loss of the residence and its environment can therefore be better managed through the degree of success of the post-disaster relocation.

The restoration of the physical, environmental or social conditions which allow one once again to feel a sense of belonging to the community also appears to be a fundamental condition for the rehabilitation of disaster victims. Fried (1963) recalled, with regard to this aspect, that the residential neighbourhood is associated with the presence of a meaningful network which allows the feeling of belonging to develop. Individuals who have developed a strong feeling of belonging to their environment therefore risk being more affected psychologically when, following relocation, they find themselves in a new environment where the absence of the networks is obvious.

Haas et al. (1977) describe the rehabilitation process as being influenced by financial, material and personal conditions which existed before the disaster. Favourable prior conditions would therefore allow anticipating a return to normal with a higher degree of success. Conversely, families who are affected or concerned by one or more of the following factors would experience more difficulty recovering from the

disaster and its aftermath: the unemployment of one or both parents, the pre-existence of illness or disability in one of the family members, few or no significant relationships with members of the extended family or the neighbourhood and little savings or "financial reserves" at the time of the disaster. The families who have faced the death or injury of one of their members at the time of the disaster, or having suffered the loss of their residence or major damages to it, or those in which one of the members lost their job because of the disaster will also experience more difficulty recovering from the consequences associated with it.

In a disaster context, relocation does not correspond to a simple move or free choice of a new residence. It evokes the need for a complete reorganization of one's self and of the family nucleus (Ursano et al., 1994). The arrival and integration into a new neighbourhood supposes the presence of both a new physical environment and a new social environment. Adjustments have to be made in accordance with the new material elements of the home and, quite often, the renewal of its contents, as well as through a latent observation of the lack of useful, personal objects or mementos. The immersion into a new neighbourhood also implies the presence of a new spatial layout, a change in access to services and work, and the presence of new neighbours.

us names of other individuals who had also lost their homes during the July 1996 flood. In order to be included in the research, the subjects had to be owner-occupants of the homes destroyed in the July 1996 disaster and they had to agree to an interviewer's visit to their home. In all, 69 people, including 35 men and 34 women, were interviewed individually or as couples.

C. DATA COLLECTION INSTRUMENTS

Two data collection instruments were used in this research: an interview grid and a fact sheet. The interview grid (Appendix 1) contained 31 open-ended questions dealing with the following themes:

- victim's situation at the time of the flood;
- thoughts, worries experienced during the flood;
- losses sustained;
- context of relocation;
- · context of reintegration into the new residence;
- feelings about the current residence as compared with the former (at the time of the floods);

- appreciated and less appreciated elements in the current and former dwelling (at the time of the floods) regarding the house, the property and the neighbourhood;
- context of the change of neighbourhood;
- feelings about the new neighbourhood;
- obstacles encountered in the relocation process;
- suggestions and comments to be made to individuals, municipalities and governments dealing with floods.

The fact sheet (Appendix 2) contained 25 closed-ended questions allowing information to be collected concerning the sociodemographic characteristics of the respondents, the attributes of their current dwelling and the dwelling occupied at the time of the floods.

D. INFORMATION GATHERING

The collection of data from the subjects took place from January to April 1997.

The interviews were conducted by a social worker and a psychologist. The first responder conducted 30 interviews while the second completed the ten remaining interviews.

CHAPTER 3

AND PRE- AND POST-FLOOD HOUSING CONDITIONS

A. SOCIODEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

The average age of the participants is 48 years. Table 1 indicates that most of the subjects are 49 years old or younger (66%), are married or have a common-law spouse (77.5%) and have access to a gross family income of less than \$41,000. The number of families with children is 31. The majority of them have three children or fewer (67.5%). Nine persons or couples stated that they did not have any children.

B. Physical and Psychological Health Status of the Respondents

Nearly half the subjects (42%) are of the opinion that their health status has declined or remained stable (47%) since the July 1996 floods (Table 2).

Nearly three times more men (24%) than women (9%) considered themselves restricted in pursuing their activities due to health problems.

Table 1
Subject Distribution by Age, Marital Status and
Gross Family Income (presented as a percentage)

Age	%
Under 30 years	4.3
30 to 39 years	27.5
40 to 49 years	29.0
50 to 59 years	18.9
60 years and over	20.3
Marital Status	
Married, common-law spouse	77.5
Divorced, separated	5.0
Single	17.5
Family Income (\$)	
Less than 21,000	20.0
21,000 to 30,999	20.0
31,000 to 40,999	17.5
41,000 to 50,999	12.5
51,000 to 60,999	12.5
61,000 and over	17.5

Table 2
Subject Distribution According to Improvement or Decline in Health Status since the July 1996 Floods (presented as a percentage)

	Men	Women	Combined
Remained stable	44	50	47
Improved	3	3	3
Declined	44	41	42
Declined greatly	3	3	3
Don't know	6	3	5
TOTAL	100	100	100

The majority of disaster victims (85%) mention the appearance of new problems related to their state of health or their professional life since the floods. The appearance of ailments or pains was also mentioned by one subject out of three while a little more than one subject out of ten either resigned from their job or received leave without pay (Table 3).

Table 3
Major Changes in the Victims' Health Status and Professional Life since the July 1996 Floods (presented as a percentage)

Situations	Number of persons
Appearance of ailments or pains	33.3
Appearance of a new ailment in a member of your family (spouse or child)	15.9
Commencement of a new job	12.7
Resignation from job	11.0
Involuntary work interruption (e.g.: dismissal or layoff)	11.0
Appearance of a new ailment	3.1

As for psychological health, it is interesting to note that for the majority of disaster victims (84%), floods are considered a very stressful event and were a major obstacle to completing or pursuing certain important activities (53%). Moreover, nearly half (42%) of the disaster victims thought floods could harm them and the majority (90%) believed that this disaster made them lose something important (Table 4).

Table 4
Consequences of the Floods
on the Victims' Psychological Health

	Frequency and Proportion of Respondents (%)				
Suggested Statements	Not at all	A little	Moder- ately	Greatly	Totally
The floods were stressful for me.	1	7	8	42	42
The floods prevented me from doing an activity which is important to me.	15	11	21	24	29
I thought the floods could harm me later.	32	12	14	20	22
The floods made me lose something important.	10	5	18	30	37
The floods represented a challenge for me.	23	18	18	23	18

C. IMPACTS OF THE FLOODS ON THE DISASTER VICTIMS' LIVES

1. Disaster Victims' Feelings

The July 1996 disaster had numerous impacts on the disaster victims' lives. The physical health of the individuals was affected just as much as the mental health by the many disruptions experienced. That is how the respondents experienced various feelings and emotions upsetting them and exacerbating the difficulties associated with their social, family and individual responsibilities, as well as with the constraints of having to relocate.

Being a disaster victim from one day to the next is, above all, having to live with the shock of realizing that there is nothing left ahead of you, that you are dispossessed.

You lose everything all at once: your house, your property and all the objects which have a sentimental value: your personal mementos from your marriage, the birth of your children, trips, material bequeathed by your parents, items from your childhood, your teens, etc.

What I lost was part of my memory.

It is also observing the destruction around yourself, the distress of your spouse, your children, your friends and your neighbours. For many, what was particularly difficult was the fact of living elsewhere than in the home they cherished so much. It was living in an environment which was very often considered inadequate. Being a disaster victim also means losing one's lifestyle, routine, comfort, privacy, freedom and roots. Living in anxiety, in insecurity and in permanent worry is also a major constraint. The constant presence of questions related to finding new housing (Will we find adequate housing? Will we receive assistance to relocate or rebuild?), the interminable waiting, the trips made to obtain information and the identification of the service points and organizations which offer assistance are also part of the stress experienced by the victims. Several mention having felt completely exhausted and powerless when confronted by the extent of the steps to be taken and the need to rebuild from scratch.

Being a disaster victim also means having your values attacked: you question the personal and financial investments you made in the property and the material goods and you question yourself a lot concerning the ephemeral nature of "worldly goods". It also means being confronted with value judgements and negative perceptions that others may have of us: "You are lucky, you are going to get new furniture" or sensing a certain "jealousy" in persons who "believe the victims became richer".

Some mention having been perceived as "difficult" and disdainful by the aid organizations because certain furniture or clothing did not suit them. Others state that they were given a cold reception with a lack of respect and attention from civil servants of various levels of government. Several experienced feelings of humiliation, dependency, lack of understanding or minimization of their situation.

Several victims observed that the physical and psychological health of the members of their immediate family was affected. The spouse's helplessness and the sorrow of children who are experiencing significant insecurity caused by the many moves, profoundly affected the victims. Moreover, in seeing their children affected by the loss of their home, their pets and their possessions to which they were so attached (toys, personal mementos, diaries, etc.), several respondents stated that they were extremely disturbed. Several victims also mention the difficulties encountered when

experiencing the stresses following the disaster while also being subjected to various major life events (bankruptcy, death of relatives, illness).

For some, the aftermath of the disaster also represented the acknowledgement of the fragility of bonds that were hitherto thought of as solid. Some victims mentioned having overestimated the ability or the intentions of support of loved ones or friends. This situation caused great disappointment in most of the victims and, in certain cases, resulted in breaking off the relationships with them.

Concerning the reconstruction of the home, several are of the opinion that it was especially difficult to adapt to extended lengths of stay or accommodation in temporary dwellings. The delays in building or rebuilding their home, the various transactions with the contractors and the fact of having undertaken the reconstruction process without the assurance of receiving some form of financial assistance were also experienced as major disadvantages.

2. Disaster Victims' Emotional Reactions

The victims' emotional reactions can be grouped according to three large phases in which the intensity of the emotions varies in relation to the events.

First Emotional Phase

For those who did not have to rush out in the night, it was disbelief, refusal to see reality. Some said that it was going to stop, that it was impossible, that such high water had never occurred before. Worry increased at the pace of the rising water.

Afterward, there was shock, panic, helplessness:

I was a robot, a frozen zombie. It was like a bad dream, I was running everywhere shouting [...] I was like a lamb that had just been slaughtered. I couldn't contain myself as I watched the losses accumulate with the rising water. I was incapable of reacting, of making any kind of a decision [...] I was traumatized, frozen, I went five days without eating.

For many it was an emotional crisis, tears, screams of pain and rage. "I cried every day, I lashed out everywhere, trying to get it out of my system."

Emotion was stronger when the victims were traumatized with the images and noises of the flood: houses, trees, animals, furniture, mud, rocks sweeping down the river and ripping away what was most precious, after family members.

My heart was being torn apart.

It was as if someone was tearing out my heart.

I cried enormously, it was a disaster.

I was enraged, functioning on adrenaline, I even broke through a police barricade to find my children on the other side of the bridge.

Second Emotional Phase

This is the period of anxiety, uncertainty, helplessness, instability and discouragement. You feel naked, stripped, overwhelmed. There is a mixture of anguish, revolt and exhaustion.

I was lost, I even forgot my way.

I really let my anger show, and had fits in front of everyone.

It is a time of ambiguous feelings: initial acknowledgements of the immediate help, but also rage, anger against nature, dams, companies, the government, municipalities. That period was longer for those who experienced more difficulty settling their compensation and who were disappointed with the results. "It was like a landslide, we couldn't see an end to the hassle because of the civil servants' lack of understanding."

Third Emotional Phase

These are the emotions that persist even after relocation. Several victims are left with a sometimes generalized resentment of which the target is not always clearly identifiable. Some have a grudge against the whole world, others find themselves with a loss of energy, enthusiasm and gaiety, which produces lassitude, fragile emotions and excessive sensitivity. That state can be accompanied by silence about everything surrounding the time during and after the flood. There is an inability, a refusal or a fear of going over the events again to prevent the eruption or emergence of the suppressed pain. Some are occasionally in a latent depression or subject to sporadic or almost permanent anguish. There is an awareness that everything is ephemeral: "Why invest so much, collect so much and lose it all?"

3. Major Stresses Experienced

The stresses experienced during and after the flood are numerous. The more the people were affected by the initial manifestations of the flood, the more the difficulties were painful and the more the stress increased in intensity. Each new stress that was added thus increased the difficulties experienced by the victims. Generally speaking, the individuals had to overcome twelve major stresses.

- Rushing out of the house without being able to take anything at all other than the clothes on your back and your purse or wallet. A few reflexively grabbed a few papers or souvenirs. Some left in the night while the water was pouring into the house. "It was a disaster, like in the movies."
- Watching the river take the house away, the souvenirs, the property, the symbols
 of so much effort, work and savings. The noises and images that jumbled together
 provided a terrible sight, gripping, distressing. "It was Hell."
- Being out in the street and having to find a place to provide for your basic needs:
 sleeping, eating, washing. "Being without your own things, wearing other people's clothes, sleeping in other people's beds or on borrowed mattresses, etc."
- Experiencing worry, uncertainty about the future. Losing your roots. Feeling
 dispossessed, suddenly impoverished, without knowing whether you're going to
 be compensation, or what will happen to the help and the compensation.
- Facing the children's anger and silence and being concerned about their physical
 and psychological needs. In September, school registration is disrupted by the
 uncertainty about the place of residence and by the moves.

- Beginning a long process of steps and claims: Red Cross, Saint-Vincent-de-Paul, municipalities, government, shopping with vouchers. Standing in line, waiting for hours, coming back several times, arguing, negotiating, choosing in haste, under pressure, without making mistakes.
- Managing the stress caused by loved ones who understand nothing about the situation (little empathy). The victims had to assert their rights. The childishness of the procedures outraged some (e.g.: recourse to a notary, cheque made in the name of the bank, etc.). The attitude of unsympathetic banks and credit unions revolted the victims.
- Making decisions, making choices regarding the purchasing, renting or rebuilding
 of a home. Beginning the processes for the estimate, the reconstruction, the
 move and the layout of the new house and new property.
- Assuming a debt to shelter yourself from the cold, to find some privacy again.
 Signing a mortgage.
- Changing lifestyle because you have less money. Giving up your travel plans,
 delaying your retirement, stopping certain activities because they are too
 expensive (restaurants, recreation). Buying less expensive furniture and items
 than you had before.

- Grieving for your home, your property and all the losses caused by the flood.
- Adjusting to a new house, a new environment, and new neighbours. Some made
 a bad choice of housing and environment, which resulted in frustration and
 regrets.

D. CHARACTERISTICS OF THE CURRENT HOUSE AND THE HOUSE OCCUPIED AT THE TIME OF THE FLOODS

Out of the group of 40 individuals or couples interviewed, it is necessary to point out that five were tenants at the time of the data collection. The information provided on the respondents' housing conditions takes into account only the individuals who maintained their status of owners.

1. Age of Residence and Length of Occupancy

Table 5 indicates that, at the time of the flood, most of the respondents (62.5%) lived in residences built prior to 1976. Furthermore, the majority of the subjects occupied this home for more than 10 years (50%).

Most of the respondents' current houses were built recently (54.3%) and the victims had occupied the premises for only a short time.

Table 5

Subject Distribution by Age of Current and Former Residence and Length of Occupancy of the Dwelling (presented as a percentage)

Age of the residence	Former residence	Current residence
2 years and less	10.0	54.3
3 to 5 years	0.0	5.7
6 to 10 years	10.0	11.4
11 to 15 years	7.5	5.7
16 to 20 years	10.0	5.7
21 years and over	62.5	17.2
Length of occupancy of the dwelling	Former residence	Current residence
2 years and less	12.5	100
3 to 5 years	10.0	
6 to 10 years	27.5	
11 to 15 years	10.0	
16 to 20 years	10.0	
21 years and over	30.0	
		<u> </u>

2. Size of the Property

In the urban municipalities of the Saguenay, the average size of a lot is 6,000 square feet. Table 6 indicates that, at the time of the floods, most of the respondents had properties the size of which was greater than that number (92.5%).

Moreover, six subjects out of ten (60.0%) had access to properties the land quantum of which was more than 21,000 square feet. Of the 35 respondents who are still landowners, only 28.5% currently own a lot of which the size is greater than 21,000 square feet, while a little more than one subject in three (37.1%) now owns a lot of 10,000 square feet or less. Nearly one subject in two (43.0%) now owns a smaller size lot, while 14.3% acquired a larger lot and 42.7% have kept the same land quantum after the flood.

Table 6
Subject Distribution According to Size in Square Feet of their Former and Current Property and House (presented as a percentage)

Size of the land	Before relocation	After relocation
10,999 and under	20.0	37.1
11,000 to 20,999	20.0	34.3
21,000 to 30,999	32.5	17.1
31,000 to 40,999	7.5	2.9
41,000 and over	20.0	8.6
Size of the house	Before relocation	After relocation
800 and under	15.0	14.3
801 to 1,000	37.5	37.1
1,001 to 1,400	37.5	40.0
1,401 and over	10.0	8.6

3. Size of the Houses and Number of Floors

Before relocation, more than one subject in two (52%) owned a house in which the floor space was less than 1,000 square feet. After the floods, that percentage was

established at 51.4%. There are as many subjects who mentioned that the size of their living space decreased (40.0%) or increased (40.0%) (Table 6).

Concerning the number of floors in the former and current residences, nearly three subjects out of ten (31.4%) have more; 14.3% have fewer and the majority (54.3%) find themselves with the same number of floors as before. We also note a variation in the number of rooms the subjects have. Thus, a quarter of the respondents (25.7%) have fewer rooms than before while 28.5% have more and 45.7% confirm having the same number of rooms (Table 7).

Table 7
Subject Distribution According to the Number of Rooms in The Former and Current Houses (presented as a percentage)

Number of rooms	Former residence	Current residence
5 rooms or less	37.5	37.1
6 to 8 rooms	40.0	28.8
9 rooms or more	22.5	39.1

4. Exterior Finish

Before the floods, just like after them, the majority of the homes were covered in vinyl or aluminum. It must be noted however that twice as many residences now have an exterior finish made of brick or stone (Table 8).

Table 8
Subject Distribution According to the Exterior Finish of their Former and Current Residences

Type of finish	Former residence	Current residence
Masonite/ stucco	10.0	8.5
Vinyl/ aluminum	57.5	51.4
Brick/ stone	15.0	34.3
Wood	15.0	5.7
Unfinished	2.5	0.0

One subject out of two had an electric heating system before the floods, while nearly six subjects out of ten (57.1%) use this means for their current residence. It should be noted that a significant number of the respondents also used wood for heating their home before the floods (35.0%). This percentage is substantially the same after the disaster (34.2%).

5. Property and Market Value of the Residences and Indebtedness

The majority of the respondents (85.7%) who acquired a new residence saw the property value of it increase in comparison with the former home. The gains recorded vary from \$5,000 to \$130,000. The other respondents (n=5) do not declare any change concerning the property value of their former and new residences. In terms of market value, the subjects estimated that their current residence could be sold for slightly more than their former home. Thus, as a whole, the persons interviewed estimated the

market value of their properties to be \$3,519,000 before the floods, while after relocation, they estimated that amount to be \$3,670,000.

In terms of the mortgage loans on the former and new homes, the differences are the most distinguishable. While 62.9% of the respondents mentioned not having a mortgage loan before the floods, only 14.3% of the disaster victims mention being in such a situation presently. Furthermore, the victims' indebtedness doubled, since the individuals with a mortgage before the floods owed an aggregate amount of \$820,000 and now the aggregate of the mortgages has risen to \$1,502,000.

For the individuals who already had a mortgage before the floods, the majority (66.6%) saw that amount increase with the purchase of their new residence, while 33.4% saw the amount of their mortgage decrease. Among the victims not holding a mortgage before the floods, only 40.9% currently find themselves in the same position.

Table 9 illustrates that currently, the average amount of the mortgage is \$13,000 higher for victims who already had a mortgage at the time of the floods. For the victims who didn't have a mortgage on their former house but who had to borrow to buy or rebuild their new residence, the average of this loan is estimated at \$38,692.

Table 9
Subjects' Average Level of Mortgage Loan Indebtedness
Before and After the Floods (presented in Canadian dollars)

	AVERAGE LEVEL OF INDEBTEDNESS		
	Before the floods	After the floods	
For those with a mortgage on their former residence.	(n=18) \$45,555	(n=17) \$58,764	
For those who did not have a mortgage on their former residence.	(n=22) Ø	(n=13) \$38,692	

6. Losses incurred

The majority of the respondents (62.5%) mentioned having sustained a total loss of their home and property. The others (37.5%) were able to keep their property, even if many sustained major damage. All the respondents saw their furniture and personal possessions disappear, as well as their garage with all the recreational and maintenance equipment being stored in it.

The loss of possession acquired as a result of inheritances, the disappearance of photographs, precious items, souvenirs of vacations or important events, as well as the loss of family clothing, were also part of the victims' fate. They stated, moreover, that their children and adolescents are having difficulty recovering from the disappearance of their pets, personal possessions and toys.

The self-employed (n=6) also lost all the office equipment and material that enabled them to work. Furthermore, certain victims mention that their cars, boats, snowmobiles or all-terrain vehicles could not be recovered.

7. Material Losses and Compensation Received

On the whole, the respondents are of the opinion that, through the financial aid received from public or charitable authorities, they recovered only about half of the real monetary value of what they lost.* The amount of the losses, estimated at close to six million dollars, does not include the indebtedness created by the existence of a mortgage on the new house. Furthermore, the amount does not take into account items which have a sentimental value and family mementos, which are irreplaceable possessions. Several victims whose income was derived from working at home did not calculate, in the total amount of their losses, the income generated by their job: bed and breakfast, publishing, family day care, dressmaking, hairdressing and photography, just to name a few. A few respondents also mentioned that the disappearance of their teaching materials was catastrophic. Losses in incomes from rental dwellings attached to the house also add to the overall financial damages that are not counted in the victims' total monetary losses.

^{*} In all, the victims estimated that the losses amounted to \$5,660,000. They only received \$3,955,525 in financial compensation.

CHAPTER 4

RESIDENTIAL ITINERARIES

OF THE INVOLUNTARILY DISPLACED FAMILIES

A. DISASTER VICTIMS' SITUATION AT THE TIME OF THE JULY 1996 FLOODS

Most of the disaster victims were at home at the time of the July 1996 floods (82.5%), a few people were either in a neighbouring municipality or outside the region, in most cases on vacation. Since certain locations were affected more rapidly than others by the waters, the prediction of the disaster and the reactions to it vary among the disaster victims, just like the observation of the damage and the evacuation processes. The various stages experienced by the disaster victims are, in reality, a succession of shocks. These initially correspond to the fear and terror created by the threats and damages caused by the flood. Afterward, the evacuation, the realization of the true extent of the disaster on the properties and the environment, as well as the fact of finding oneself in the midst of uncertainty, with nothing to look forward to contribute to multiplying the trauma experienced by individuals.

On the whole, an impression seems to emerge to the effect that the perceived danger was less than the real danger since the people were inclined to underestimate the extent of the catastrophe and deny the gravity of the situation. The trauma then

experienced is not only on a personal level, it is also collective. Individuals are, of course, affected personally, but they are also affected at the level of the couple, the immediate family, the extended family, their network of significant others, as well as on the social and community levels.

Initially, several people observed the changes in the flow and level of the watercourses and showed little concern at that time. The situation and the behaviour of the watercourses were associated with the spring freshets. Some continued to attend to their daily activities or carry out their routines, even if some concerns seemed to be expressed. Thus, some people mentioned:

- [...] it was raining a lot but we weren't worrying yet [...]
- [...] there wasn't anything alarming [...]
- [...] I didn't think the water could reach the house [...]
- [...] Saturday morning, I went to work and my wife stayed home to take care of some visitors [...]

Saturday morning, I went to work [...] my husband stayed home with the children [...]

Several people had not slept well the night of Friday to Saturday because of worries related to the heavy rains and the situation of the rivers that seemed high and noisy to them:

[...] I went to bed [...] then I got up again [...] I went back to look during the night.

I didn't sleep at all on Friday night [...]

When the river first overflowed, the people's primary reactions seemed directed at protecting the sites and the residences, either by installing pumps or by digging trenches after seeing the water seep into their basements or encroach on their property:

[...] the water was rising in the basement [...] I installed a pump [...]

We installed a pump in the basement to protect the rent [...]

[...] I went to dig some trenches in order to divert the water, but the work was useless [...]

I got up on Saturday morning [...] there was two feet of water in the basement [...] I installed a pump [...] then I borrowed a second and a third [...] the water was still rising [...]

[...] I spent the night removing water from the basement [...]

Those initiatives were marked by discouragement which took over rapidly, given the impossibility of preventing the water from invading property and homes.

Most of the people were in awe, stupefied to observe the extent to which the river was rising. They were also staggered to see the water and mud making its way through the streets, to see trees floating down the river, to watch the roads on which they were traveling erode or disintegrate shortly after they went over them, thus placing their lives in danger. Fear gripped the region. Most of the disaster victims mention not

having understood at the time what was happening or not having fully realized the extent of the floods. The people kept hoping that the swelling of the waters would stop, stabilize and then return to normal. However, attempts made in vain to evacuate the water from the basements, the observation of the presence of several inches or feet of water inside the house, the deafening noise and the worrisome droning sounds forced people to realize the gravity of the situation. Concern gradually increased. Some people also said they were terrified when they felt the house move and heard the window panes shudder. Others, acting on the spur of the moment, put their lives in danger by trying to rescue certain items.

B. EVACUATION

Some people were evacuated in an emergency in the middle of the night, with neither the time nor the opportunity to bring anything at all:

We went out running, in nightshirts and underwear without having the time to rescue anything [...]

[...] at five o'clock, I woke up my wife because there was 15 inches of water at the patio door [...] a neighbour came to help us get my wife out because she's handicapped [...] we reached a safe area on higher ground [...]

At 1:45 in the morning, the neighbour came to wake us up [...] the river was rising like warm bread. [...] I turned on the light [...] I was shocked [...] at 2:45, the police came to warn us to get out quickly [...] we left with the dogs [...] that's all [...] we didn't take anything with us.

[...] we had 5 minutes to collect what the children needed [...] we took the basics for half a day [...]

Others were evacuated later and were able to take some things with them.

Most, however, were convinced that they would return to their home shortly and took only the very essentials for a few hours or a day, in some cases even leaving their family pets at home. Others, having seen that the water was continuing to rise, moved some furniture and various items from one floor to the next to make them safe before finally being evacuated.

Some, away from home, were unable to return to it because of the road erosion or the bridge closures. A few, heading for their home, experienced great fear in observing that the road was disintegrating as they passed and that the water was seeping into their car as they drove:

The road was flooded [...] there was water inside the car [...] I had the fright of my life [...]

When we left [...] the road was soft.

Some evacuated on their own or were notified by their neighbours or by members of their family of the need to evacuate the flooded sector. Others heard the evacuation order on the radio or were personally advised by the police or by the Sécurité civile responders to leave the premises. Individuals, in a state of shock or

incapable of realizing what was happening, hesitated to evacuate and had to do so as a result of the pressure and great insistence from the people around them.

There was a fear of being surrounded by water or being carried away while travelling the roads during the evacuation. Some individuals mention fearing for loved ones who had remained at home while they were away, because they were too old, or because they suffered from certain disabilities or were too sick. Others worried thinking about relatives who might simply be asleep and not aware of what was happening. The fear that the dams would give way was also present among the disaster victims. The wait for help was endless. Nervousness, impatience and even anger are also behaviours which were present during the state of emergency.

Powerlessness and despair in the face of the situation, the impossibility of controlling the events are some feelings which were combined with the fears and fright expressed or which immediately follow evacuation, or which even emerge when observing the situation at a certain distance from the premises. A feeling of powerlessness was also obvious in people outside the region who could not return to the site because the bridges had collapsed or the main roads were closed.

Worry tends to give way to nervousness, turmoil and panic in the face of the extent of the damage. Anguish and insecurity appear and some people mentioned the

impression of having found themselves in an unreal context and having felt dissociated from reality.

The state of shock is often mentioned once the people realize the extent of the damage. Disbelief, worry and the hope that the rivers will stop rising and that they will be able to return to the site without too much damage disappear only to make way for tears, crying fits and discouragement.

The disaster victims who saw, in televised programs, their houses swallowed up in the current and who observed that the cars, trees, furniture and various debris were also carried away by the current realized the gravity of the situation and the losses incurred. Afterward, they went into a state of disbelief, stupor, stupefaction and hope that it would stop, a state of shock or stupor when they realized that, in the majority of cases, they were losing all their possessions. Others who were watching the events closely, by going as close as possible to their home to see the extent and constant progress of the damage, were marked by a state of despair and collapse in spite of the words of sympathy and attempts at consolation from other people who were suffering the same fate. Tears, aggressiveness, anger and a feeling of frustration were also experienced by the disaster victims.

C. FIRST SHELTERS

The choice of the first shelter following the evacuation is determined by the facilities placed at the disaster victims' disposal by the government, the community and municipal agencies, the offers from family members and friends, and by owning recreation equipment (camping trailers, small cottages, etc.). The first shelters constitute above all a means of sheltering oneself from the elements, being able to feed oneself and sleep, having access to spiritual support and being together as a family.

Some people initially sought refuge in facilities targeted by the authorities, that is schools, recreation centres or the Bagotville military base. We see that some of the respondents mention having been again evacuated from the first shelter following more flooding. Others, who had taken shelter with relatives or friends, encountered the same fate and were forced to once again evacuate the premises. Some disaster victims also benefited from the accommodation offered in hotels placed at their disposal.

Hasty departures, by car or by bus, as well as integration into a first shelter seemed disconcerting for many people. They mention having felt panic-stricken by the arrival of numerous disaster victims, by the comings and goings of the helicopters and by their deafening noise. In the community shelters, the sudden confrontation of unnerved and frightened people from just about everywhere, who were crying, shouting and in a state of shock, shook the morale of those who felt less affected. Furthermore,

the lack of privacy, services and space created tension. For others, however, the fact of finding themselves with people going through a similar situation allowed them to talk with each other and feel understood. Consolation was also one of the aspects mentioned by the disaster victims. Those aspects are mentioned as much appreciated. At the Bagotville base, for example, the fact that some recreational activities were organized to amuse the children allowed the parents to look after themselves and take stock of the situation in a more relaxed and informed manner.

The first hours and days were spent without sleep by many who were in a state of heightened stress. For those who were lodged in remote areas where ground communication was cut, the situation was hardly brighter. The difficulties encountered with regard to water and food supply were cause for worry and stress. People felt abandoned, left to fend for themselves and vulnerable. They also mention feeling completely bereft and deprived, and feeling stripped of their rights. Besides being confronted with their own sorrow, parents also had to reassure and console their children. Some tried to hide their feelings and cried in private, trying to maintain a stoic attitude so as not to increase the fears and worries experienced by the children. Furthermore, many children were traumatized and shared their fears of being accommodated in places located near the watercourses.

When the list of available housing was presented to the disaster victims, a precipitous movement to access the best housing ensued. That situation created

dissension, frustration and aggressiveness in certain people who were already very psychologically shaken.

D. DISASTER VICTIMS' VARIOUS HOUSING MOVES: MAJOR LOCATIONS USED AND THE REASONS FOR THEIR USE

Prior to setting up in their current residence, the disaster victims made an average of 2.8 moves, the majority mention having to relocate three or four times before moving into their current permanent residence. Table 10 illustrates the number of home changes made by the disaster victims since the July 1996 floods.

Table 10
Number of Moves made according to the
Number of Respondents (presented as a number)

Number of moves made	1	2	3	4	5	8_
Number of moves per person	2	16	14	5	2	1
Average number of moves by individual and by family	2.8					

The first relocation site is generally chosen with urgency and meets a need for shelter, sleeping, eating and trying again to find a bit of peace and security. The disaster victims were either invited to find accommodation in these areas by public authorities or they went there instinctively. The first relocation site refers generally to

the presence of family members or friends from the immediate neighbourhood. A few people, however, had to resort to congregate accommodation centres placed at their disposal by the civilian authorities. Generally speaking, disaster victims remain in accommodation centres only a short time, either a few hours or a few days, and quite often seek other temporary accommodation where, in most cases, they will live several months before choosing a new more final facility, either by buying a new house, building a new residence or opting to rent an apartment.

As soon as the decision was made to evacuate the home, whether personal or imposed, most of the disaster victims took advantage of family resources during the first relocation phase. It is important to specify here that several resources may have been solicited in turn by the same respondents. Afterward friends, community sites and other facilities presented the choice of the individuals who found themselves homeless (Table 11).

During the critical moments of the disaster and in its immediate aftermath, disaster victims do not really choose their first relocation site according to a long-term vision. The locations preferred by the disaster victims respond more to the need to satisfy the basic psychological needs. For some, the first accommodation site is, on the other hand, chosen on the grounds of demands related to the disaster itself (closure or collapse of roads or bridges).

Following the generous invitation by family members or friends who may or may not live in safe areas, certain disaster victims immediately accept the offers made.

Others head for the community meeting centres identified by the authorities. Several disaster victims mentioned that they were not sure where to go, but that they were looking for a reassuring presence or needed to be together as a family. The availability of space for receiving guests in the home of the first hosts, the possibility of having access to a means of transportation, exhaustion, fatigue or disorientation caused by the evacuation in the middle of the night are also reasons that influenced the choice of the first accommodation site.

For many people, another evacuation was necessary. That reawakened the same feelings experienced during the search for a first relocation site. Some disaster victims made use of vacant homes or apartments belonging to family members or friends. Others were able to take advantage of a relocation site belonging to them by seeking shelter in their cottage, their trailer or their tent trailer. Even if those sites lacked basic services (water and electricity), some people stayed in them until the arrival of the first cold nights. A significant number of disaster victims tried to distance themselves from the flooded neighbourhoods or from those which were located near a river because of the fears expressed by themselves or by family members, or in the hope of escaping the environment of the disaster.

In most cases, the temporary aspect of the first accommodation site is recalled by the disaster victims, as they wish to move back into their home as soon as possible.

The fact that the community accommodation sites (army base, hotels) do not involve additional costs for the disaster victims also encourages certain individuals to turn to them and prolong their stay there. Those sites, by offering several services to the families, provide a certain respite to the parents and individuals who are relieved of routine or daily chores (meal preparation, food purchases, housework). Those options also allow the parents to catch their breath and better assess their situation.

E. OTHER ACCOMMODATION PHASES

The second accommodation or relocation phase generally occurs after the realization of the impossibility of returning to the home and the total loss of the home and personal possessions. Then the disaster victims generally look for a place where they can express their emotions, often suppressed until then. Many people note that the presence of their hosts, whether relatives or friends, or even other disaster victims, forced them to use considerable restraint in order not to let themselves cry and express their worries and doubts. The lack of privacy, the proximity, the fear of disturbing, the large number of people in the house or the onset of tension and friction between disaster victims and non-victims led them to look for another place to stay.

In the quest for their second accommodation site, the disaster victims considered proximity to services and help and information centres, as well as the presence of individuals experiencing the same situation or who are capable of understanding them. Disaster victims also recall the importance of being relatively close to the disaster sites or their home in order to watch the progress of the damage, the possibilities of vandalism and of finding a place for themselves which would facilitate their dealings with the various government and municipal responders during the assessment processes which would be determining factors at the time of the final relocation choice.

During the second relocation phase, three major types of behaviour are used by the disaster victims. The first is the search for secondary temporary accommodation with friends or relatives when they have not recovered the physical and psychological balance which enable them to face all the difficulties. At that time, people feel too disturbed or exhausted and still need support. Individuals therefore do not feel ready to direct themselves toward a more permanent form of accommodation. In those cases, the fact of finding a large number of people at the place of residence of the first hosts (possibly including other disaster victims) and the fear of disturbing others are what drove the disaster victims to head for one or more accommodation resources which could receive them.

The second behaviour observed was employed by those who realized the extent of the disaster and were convinced they would never return to live in their former home, either because the house was swept away by the water or because it was in a condition where any renovation was clearly impossible. The fact that certain areas had been declared flood zones by the public authorities also influenced the disaster victims to search for a permanent home. The disaster victims then began to look for an apartment or a house to rent before starting to rebuild or purchase a new home.

In the last case, some disaster victims have already begun their quest to purchase or build a new home and they do not contemplate any transition to a second accommodation site.

It is also necessary to take into consideration that living environment transitions are made in a context in which the disaster victims had little information on the aid measures or the forms of assistance that were available to them. An atmosphere of uncertainty and constant worry accompanied individuals during the numerous steps and procedures carried out to obtain recognition as a disaster victim, at the time of receiving vouchers and when acquiring various basic need items (and their storage). All the steps were taken in a context of haste and questioning.

During the second accommodation phase, it is therefore the choice of renting an apartment that predominates; next comes the rental or the loan of a house, lodging with

loved ones, the use of cottages or trailers and the temporary relocation with friends.

Table 11 illustrates the types of resources used by the disaster victims during those

two phases.

Table 11
Accommodation Resources used during the First and Second Relocation Phases (presented as a number)*

Type of resource	Primary phase	Secondary phase
Family	42	6
Friends	12	5
Community	6	0
Apartment rental	4**	15
House rental	2**	8
Cottage, trailer, etc.	0	6

^{*} The number is greater than 40 because the disaster victims could have been relocated to more than one site during each of the two major relocation phases.

** During the initial phase, the apartment or house is loaned.

F. ADVANTAGES AND DISADVANTAGES OF THE VARIOUS ACCOMMODATION SITES

In their first accommodation phase, disaster victims appreciated above all their hosts' welcome and hospitality if they were lodged with one of their close relatives. For those who found refuge with friends, the individuals remember their hosts' moral support as well as the comfort of their house. In the congregate accommodation centres, the availability of on-site services, the organization of recreational activities for the children as well as the proximity of people having experienced the same situation especially marked the respondents.

Concerning the disadvantages experienced during the first relocation phase, the disaster victims as a whole stated they had difficulties related to the feeling of not feeling at home. The lack of privacy as well as the feeling of disturbing and depending on others were also mentioned by most of the respondents, irrespective of the accommodation site (Table 12). We also mention that certain disaster victims complained about the family tensions which surfaced as a result of the floods. Those who were accommodated in several locations during the first relocation phase also remembered the difficulties of having to leave their temporary residence several times. "We had to leave once again with our little box of clothes."

During the second relocation phase, disaster victims settled into places that allowed them to take possession of the premises, to appropriate a large enough space to perform their daily activities in privacy.

Table 12
Advantages and Disadvantages of the various Types of Accommodation used during the First Relocation Phase

Types of accommodation resources	Advantages	Disadvantages
Immediate family (father, mother, mother-in-law, father-in-law, brother, sister, brother-in-law, sister-in-law, child)	Welcome and hospitality of hosts Moral support and empathy Prepared meals Separate room available Material and financial support Relaxation Family availability Safety	Not being at home Lack of privacy Feeling of disturbing others Sleeping in an inappropriate place Hosts' or visitors' questions Adjusting to the hosts' lifestyle Having a pet Feeling of dependency
Extended family (uncle, aunt, niece, grandparents)	Warm welcome Having a shelter Eating Sleeping Sympathy and empathy Comfort Safety Personal space	Lack of privacy Lack of conveniences Weakness of the bonds Hosts' age or illness Feeling of disturbing others Controlling the children Suppressing one's emotions
Friends	Moral support Comfort and space Hospitality Relaxation Discretion Eating Sleeping	Feeling of disturbing others Not being at home Persistence of concerns Scattering of the family*

In certain cases, not all the members of the same family could be together in the same place.

...continued

Table 12 (continued)

Types of accommodation resources	Advantages	Disadvantages
Community sites**	Good meals and services Activities for the children Being able to talk with other disaster victims Free of charge Relaxation	Continual comings and goings Persistence of the worries Not being at home Disturbed sleep

^{**} We are referring to the military base, the hotels and the high schools.

The disaster victims who rented a house or an apartment especially appreciated being finally able to be alone in a living environment where they were able to recreate "a second home". The fact that they were able to be independent and rediscover a certain stability also helped the disaster victims. However, most of the respondents found it difficult to live in a restricted and noisy environment close to neighbours.

The disaster victims who went to stay in the homes of loved ones feel that their hosts' reception and moral support were undeniable advantages, in spite of the fact that the respondents stated that it was hard not feeling at home. They were also afraid of disturbing others and some mentioned having experienced some difficulties due to a lack of empathy from their loved ones (Table 13).

Table 13
Advantages and Disadvantages of the Various Types of Accommodation
Resources used during the Second Relocation Phase

Types of accommodation resources	Elements appreciated	Difficult elements
Apartment	Being together as a couple or a family Having a feeling of being at home Having space Finding privacy Already furnished Affordable cost Finding a certain stability Proximity to services, to work Sleeping in an appropriate place	Strange and noisy environment Limited inside and outside space Not feeling at home Lack of privacy and proximity to services Lack of conveniences No longer having personal effects Staying there longer than expected Plain or neglected environment
Rental or loan of a house	Being together as a couple or a family Feeling at home Tranquility Independence Return to a certain stability Space Privacy Comfort	Proximity of neighbours and lack of privacy Unknown environment Inadequate or old house Not feeling at home The constraints of a lease
Accommodation with loved ones (family or friend)	Warm welcome Help for the steps to be taken Finding the family environment again Storage space Loved ones' love for the children	Not feeling at home Not being able to have visitors Feeling of disturbing others Lack of understanding about what the disaster victims are experiencing Having to stay longer than expected

...continued

Table 13 (continued)

Types of accommodation resources	Elements appreciated	Difficult elements
Cottage and trailer*	Feeling at home Proximity of services to the former residence Rest Tranquility Family well-being Privacy Independence	Lack of conveniences Cold in autumn Lack of services (electricity, water) Limited space

^{*} This phase occurred during the summer.

It must be noted however, that, by and large, disaster victims received very good support from family and friends: physical, emotional, financial, mentoring. The flood made it possible for many disaster victims to realize the solidarity of the family and to identify their real friends. Some were surprised and very touched by the origin and the amount of the monetary or material donations. Gifts were even sent by less familiar or distant relatives. This event helped bring family members together, and revive mutual affection and trust.

On the other hand, a few disaster victims experienced a lot of disappointment with their immediate family. They did not feel any welcome, understanding and sympathy from their loved ones. They were disappointed by the support and assistance received. Thus, they harbour, for example, a lot of bitterness and resentment toward one or two family members who displayed jealousy regarding the financial compensation allocated by charitable organizations. The relationships are no

longer the same and the respondents stress that, if need be, they would now turn to their friends.

G. RETURN TO A PERMANENT RESIDENCE

The first attempts at returning home were made in timeframes varying from three or four days to more than two months after the floods. A new state of shock took the place of the first when they observed the desolated state of their homes and environment. The disaster victims then saw the total disappearance of their home and their land or the devastation of their possessions. It was in a dismal and distressing setting that they truly realized the extent of the losses. The attempts to recover certain items were made in a context of questioning because there were questions concerning the purpose of the recovery, and the burden of the work to be done. Some, considering the assessments that were probably going to take place, also asked if it was preferable to leave the sites as they were rather than clean them. The recovery task was also carried out in an unhealthy environment, where water and mud had infiltrated. Nauseating odours were also emitted. Some disaster victims, whose homes were not swept away by water, found their furniture and various personal items out of place, strewn about in the water and on the ground. In some places, the sites were unrecognizable. Certain houses had completely disappeared, others were ripped from their foundations. Properties were devastated, trees were lying uprooted everywhere. In the place where a river used to run, there was instead a cliff or a gaping hole.

Some disaster victims moved back into their damaged home right away only to evacuate the premises again in the following hours because of the risk of erosion of their land.

Temporarily accommodated, the disaster victims began to receive first aid measures. Agencies such as the Red Cross and the Society of St. Vincent de Paul started to distribute purchase vouchers for furniture and various goods and made new and used items from various areas available to the disaster victims. The purchases were made hastily; some mention feeling very much in a hurry to replace their possessions and admit to having poorly estimated what they needed. Several were simply not in a position to know exactly what they really needed at the time they made their purchases.

Disaster victims also began to scramble for housing and the wait for assessments and reconstruction permits seemed endless. For many disaster victims, the decision to acquire a new residence, rebuild or move was marked by a sense of urgency, strong emotionalism and a lack of information. Some also mention having started the process to purchase a new residence or rebuild even before knowing whether they would receive compensation for their losses, while others recall that they were not totally capable of evaluating their real needs or those of their family, considering the disruption they were experiencing. Several disaster victims also had a

brush with the municipal authorities concerning their property assessment, which was estimated lower than the true value. Several difficult and repeated approaches were necessary in order to receive fair treatment. For others, certain disputes over their home ownership status proved to be very trying.

The numerous steps to be undertaken in the aftermath of the disaster proved, in the majority of cases, to be difficult and exhausting and they were performed in a context of uncertainty, worry, anguish and nervousness. Several people mention having given up, having allowed themselves to be led by others, having sought solace in drinking. Some respondents recall that they silenced their emotions and began the post-disaster procedures by trying to ignore their losses or by trying to preserve a certain emotional control in order to make their loved ones feel secure.

The demolition manoeuvres, as well as the financial cost related to this operation, also proved emotionally difficult according to some respondents.

The rehabilitation process was also carried out in a difficult context for many.

They had to work while organizing themselves. The pursuit of the procedures related to the compensation, to the search for temporary housing, to the purchase of a new house or the building of a new residence were thus added to the professional responsibilities of several individuals. In the families where only one member of the couple was employed, it was by and large the women who assumed responsibility for

the steps related to the purchases, the reception of the vouchers and the recovery of the bare necessities. However, some people were incapable of taking the steps or making any decision whatsoever. They then received support from one of their loved ones. Although some employers demonstrated sympathy toward the disaster victims, others seemed to be uncompromising and to have required that their employees come to work as normal. A few disaster victims mention even having sustained losses in salary while they were totally incapable of going to work because of the pitiful condition of the roads.

Following the floods, people tended to settle near their former residence. In most cases, when there is an exodus to another neighbourhood or another city, such a movement occurs because of the inability to house oneself close to the original housing sites. That inability generally refers to the shortage of available or adequate housing, to the impossibility of rebuilding on the property which became a flood zone or to a lack of available property in the same environment. A few people also mentioned having wanted to distance themselves from neighbourhoods which were situated close to watercourses because of the fears associated with the floods or because some family members remained profoundly traumatized by the events of July 1996.

H. DIFFICULTIES AND OBSTACLES ENCOUNTERED DURING RELOCATION

The difficulties encountered by disaster victims, from the outset of the relocation process, or in other words from the evacuation of the home until the present phase, are numerous and diverse. They can come from intrinsic or extrinsic sources. The first, which are associated with difficulties of a personal nature (physical, psychological and relational), can come from the various shocks caused by the devastating event and their immediate effects, as well as from the disaster victims' individual response in the face of the many stresses which they have to overcome.

The difficulties the disaster victims confront in the relocation process also refer to the paradox of having to proceed in a situation of uncertainty, worry and waiting, besides having to continue to shoulder the everyday routines in a context where all the bases (physical, social, family, cultural and economic environments) which are used to ensure its balance are destroyed or shattered. It is also having to make decisions in order to ensure the well-being and the immediate survival of the family unit in a situation in which the physical bare necessities are absent or rationed and in which the possibilities of finding adequate housing in the desired locality or neighbourhood are greatly reduced, or even non-existent. At the time of the arrival of the initial financial compensation or material aid, it was also the scramble for purchases in an atmosphere of haste where a multitude of goods and furniture have to be acquired in a short time.

Tables 15 and 16 present the major difficulties encountered by the disaster victims, according to their origin.

The second category of difficulties refers more to the presence of agents outside the individual, such as the political, legal and economic institutions, organizations and structures, existing or created specifically as a result of the floods. The fact that numerous already existing organizations or structures saw their role change considerably as a result of the many needs created (physical and psychological) by the floods and by the relief measures offered (decrees, compensation, donations, etc.) should also be taken into consideration.

Table 14

Major Difficulties of an Intrinsic Nature encountered during Relocation

	Difficulties of an intrinsic nature
Physical	Fatigue and exhaustion Aggravation of a precarious physical health condition or the onset of ailments or symptoms Continuing to work outside while rebuilding
Psychological and emotional	Anxiety problems Stress Depression and burn-out Reassuring and motivating the children Moral support for the spouse Persistence of fright or fear at home or with loved ones Experiencing the bereavement for losses Constant uncertainty and worry Loss of the feeling of security, privacy and home
Relational	Certain civil servants' attitudes which reflected lack of understanding or coldness Being misunderstood or perceived as "profiteers" by fellow citizens Employers' lack of understanding Family and marital conflicts Break-up of couples Disillusionment regarding the possibilities of support from family members, friends or organizations

Table 15 Major Difficulties of an Extrinsic Nature experienced by the Disaster Victims

	Difficulties of an extrinsic nature
Economic	Negotiations with the contractors Work-related difficulties (loss, inability to obtain leave, wage loss) Financial insecurity Financial losses Property under-assessed Substantial tax increases Financing difficulties Indebtedness
Material	Finding housing, rapidly rebuilding or purchasing a new house Housing shortage Cleaning, storage problems Transition from a house to an apartment Living at others' homes Approaching charitable or community organizations Buying a large quantity of goods and furniture hastily
Legal	Lease-related problems (signing and breaking) Securing recognition as a disaster victim Problems related to surveying (cost, need to repeat, etc.) Waiting delays for authorizations to rebuild Conflicts with municipalities and financial institutions

I. IMPACT OF THE DISASTER ON THE VICTIMS' HEALTH

In addition to being physically and psychologically affected by the direct impacts of the disaster and by the many difficulties caused by its aftermath, many aspects of the disaster victims' personal, family, professional and social life were altered. For example, several disaster victims mentioned that their physical health status or that of their loved ones had undergone a significant change capable, in some cases, of requiring recourse to a physician or even hospitalization:

We aged prematurely [...] it aged our system [...]

[...] it makes you run out of steam [...] I have no more drive, no taste for anything [...] no energy [...]

We had some health problems [...] stress [...] hypertension, anguish [...] I lost thirty pounds.

[...] hypertension [...] intestinal problems [...]

I became completely exhausted and I had to be hospitalized for a week [...] accumulation of stress [...]

[...] He became very depressed after Christmas [...] fatigue, stress, tension [...] had to take tranquilizers [...]

[...] my health was very fragile, mainly during the first month following the flood [...]

The convalescence periods imposed by doctors and sick leaves were also mentioned as results of a significant change in physical or psychological health. Some reported changes in their attitudes and behaviours toward others and life:

[...] he became more aggressive and bitter toward government [...] I was continually drunk for a year [...] He became impatient [...] he doesn't have fun like before, doesn't have the same zest for life [...] Our joie de vivre is less intense. I don't keep anything anymore [...] I don't take any more photos [...] We have less pleasure [...] less of a taste for life and laughing [...] The psychological and emotional difficulties led several disaster victims or some members of their family to undergo therapy: I went for therapy to get rid of my resentment [...] to grieve [...] [...] I took antidepressants [...] Our ten-year-old daughter is being seen in psychotherapy [...] to overcome her fear of death [...] I went to see a psychologist several times [...] [...] we went to therapy together [...] but now we are both taking steps alone [...] [...] I had to see a social worker [...] I was afraid of slipping back into my depression [...] [...] my granddaughter went into therapy for twenty weeks [...] [...] he is being followed in psychotherapy [...] for suicidal ideas [...] me in psychiatry [...] I take medication [...]

We also note that many people who did not consult professionals continue to say they are affected at that level:

[...] I still experience periods of anguish [...]

I still have a lump in my throat [...] of bitterness [...]

We no longer have the courage [...] or the energy to start things [...] we do things nonchalantly, we have less enthusiasm for doing things. We lost our passion for everything [...] our joie de vivre is less intense [...] we are more affected morally and psychologically.

The disaster victims' marital and family life, whether in the context of everyday activities or short-term or long-term projects, were also substantially altered in several cases. While some couples describe tension, misunderstanding or even break-ups, others report increased closeness, better communication and closer bonds between them. Parents also mention the great amount of energy required to look after their children, to reassure them, to help them become integrated into a new environment and cope with the losses sustained. Concerning longer-term projects that had to be put aside for a few more years, the most frequently mentioned are various projects among which is retirement. The following statements illustrate the situation fairly well:

The flood changed our retirement projects [...] it will be necessary to delay it and settle the financial situation [...]

It changed our way of living and looking after our retirement [...]

We were forced to revise the budget and the priorities [...] it changes the view of retirement [...]

I am going to delay my retirement by two years [...]

What also emerges from the disaster victims' discussions are the remarkable upheavals in the professional and social life. Professionally, it is in large part the repercussions of the change in physical and psychological health which affect life at work:

- [...] at work, I had to be assigned to a less stressful position, because I was no longer capable of being efficient [...] it could have been dangerous [...]
- [...] my wife's depression [...] she had to take sick leave [...]

While for fewer disaster victims, the disaster's immediate impact caused a loss of jobs because the workplace and the equipment suddenly disappeared:

- [...] for me, it meant the loss of my job and of my shares in the company [...]
- [...] it meant a loss of income too [...] I lost my workshop [...]

The burden of the reconstruction also affected the job performance of several people who were unable to obtain time off from their employer or who, owning their own business, had to work extra hard to reconcile both aspects.

Many of the disaster victims' comments confirm changes in social habits and activities due to a lack of energy and drive, a lack of interest, a feeling of non-integration into their new environment, the loss of the old environment, or even as a

result of financial limitations or indebtedness due to the losses sustained during the disaster:

We curtailed the spending, the trips, the sports, the recreation and the outings [...]

We changed our habits [...] organized fewer outings [...]

Our lifestyle changed [...] fewer leisure activities [...]

I feel less desire to have friends over [...]

[...] outings occur less often [...]

It's hard adjusting to new friends [...] making new acquaintances [...] before, I was very involved [...]

The time invested in the house prevented me from continuing to go bowling [...]

Socially, we have been less active for a year [...]

Some people also say that a change in their social and personal relations and visits occurred during the relocation process. That is due to the observation of negative reactions or the lack of understanding and help on the part of friends or members of the immediate or extended family:

It changed our attitudes toward the family [...] we were disappointed by the little support and sympathy [...] friends are more reliable

- [...] it allowed us to sort out friends and family members [...]
- [...] my brother tried to take advantage of me [...] now our relationship is strained [...]

The flood made it possible to find out who our real friends are [...]

The reverse situation is also observed:

We became aware of our network of friends and of family solidarity [...]

[...] with the neighbours, we're more united now [...]

For others, the relationships changed due to the physical distance that separates them from their former friends and acquaintances.

The area of individual values also undergoes changes in the context in which one loses the majority or all of one's material possessions and personal effects, and where it is necessary to move into one or more types of accommodation with or without a minimum level of preparation. Some disaster victims mentioned that they wanted to look after family members more and allot more time and attention to their spouse and children rather than spending most of their energy on the recovery and accumulation of various material objects.

CHAPTER 5

THE CONCEPT OF HOME

FOLLOWING A DISASTER

The concept of a home refers to a range of feelings felt by those who occupy the dwelling. Those feelings are aroused or kindled by the possibilities the residence offers (socialization, development of emotional relations, transmission of values and culture, etc.), by the happy and unhappy events occurring in it and by the influence of the dwelling's interior and exterior environment on the individuals' physical and psychological well-being.

A. IMAGES OF THE FORMER RESIDENCE

For individuals, the former residence represents above all a considerable amount of time, effort and investment, as much to transform the "cottage" into a permanent residence as for the modifications, changes and developments made over the course of the years to the house or the land. Most of the disaster victims mention having done the different work themselves over periods of time which spanned several years. Some said that their house was the fruit of their labour and their efforts. "That

house was us, our own handiwork, we had built it how we wanted it. It was like a sculpture that we had made."

For many, the former residence was also a self-achievement and a personal accomplishment. Some associate it with their "pride", their "independence" and "their goal in life". For others, the former residence represented "an end in itself". This former residence was also, very often, the expression of the disaster victims' personal tastes experienced through the acquisition and progress of the transformations: "It was the expression of my personality [...] the place we had been looking for." Several also mentioned that their former residence represented the family's past. The house then assumes an added value because it comes from a family legacy; it is not only a shelter but also represents a reservoir of maternal and paternal memories. Furthermore, many disaster victims mentioned with regret and sadness the fact that they lost a part of their past, either they had acquired the house or the property from their parents, or they associate with it times and events linked to the presence and passing of loved ones:

It was the property my mother had given to me.

[...] my grandfather's land.

It had a lot of sentimental value [...] it was my deceased husband's home.

It was the place where the children grew up [...] they used to return here [...] looking for things they had left behind.

For some, their former house was a part of themselves. It emitted aromas, vibrations and traces that were theirs. The lost house therefore offered a feeling of comfort and security. It was the product of the time, passions, energy put into it.

The former residence also represented rest, relaxation and closeness to nature: Even before we built, I used to come here to walk in the woods [...] and to relax.

Being by the water, that was my dream.

It was a little paradise [...] in nature, close to the water.

I liked being able to feed the birds and ducks, and look after the property.

The house thus has its value in relation to its environment. Often, house and environment are inseparable. The house unites with the river, nature and the environment. The most beautiful house outside of its environment loses all its value while the most modest residence represents a castle, a piece of heaven on earth. "That house was a little paradise [...] the most beautiful spot in the world, a dream house."

To live in your house also means to progress through the various life cycles. Several respondents associate the former residence with life stages and events. If, for some, it meant the beginning of life as a couple, the birth of their love and their union, for others it will be a symbol of a new beginning, a second union. The house thus becomes "a sentimental symbol because of the new union, the rebuilding of a couple in

which the residence was chosen by both members of that couple based on this new stage in life." The former house also reminds one of childhood and adolescence for those who lived there. It also represents having become parents through the birth and education of one's children:

That was where the children were born and grew up [...]

I raised my whole family there [...]

That was the place where the children played and breathed [...]

The former residence was also the current or projected retirement phase. Some also associate it with the golden years:

It was the place for our retirement [...] for spending our golden years.

[...] my retirement spot.

And with the ultimate stage of their life: "[...] I always thought I would die here [...]"

The image of the former residence also reflects the expression of belonging to a neighbourhood where one's roots are:

We were attached to the spot [...]

We liked the spot.

We knew the neighbours, the children, the dogs' names [...]

We were the first to have a home in the neighbourhood [...]

It is also the expression of the individuals' identity and social status:

Everyone thought we were the rich people of the neighbourhood [...]

The people were amazed [...] they envied us.

It was a part of us.

A place that resembled us.

The former residence also represented a place for building or strengthening relationships with some significant others. Some said that it was the ideal place "for having friends over" and some qualified the former residence as a "welcoming and pleasant environment". Alluding more to their marital relationship, others pointed out:

It was our love nest.

A pretty little house for the two of us.

The former residence is also associated with the dynamics of maintaining family bonds. Some disaster victims mention the importance of the "family plot" where brothers and sisters or other family members could be hosted or even for the children's occasional return to their parents' home.

The concept of a home emerges through the images individuals inhabiting the premises have of it. The various images refer as much to the individuals themselves, their hopes, their concept of well-being, their interactions with others and their environment as to the control exerted over their environment. The significant aspects

of the concept of home for individuals, through the images they have of their former residence, are grouped according to different themes. Table 16 illustrates the reference to the various themes.

B. IMAGES OF THE CURRENT RESIDENCE

The concept of a home, in a disaster context (relocation – reconstruction), emerges in a completely different fashion depending on the images the disaster victims have of their new residence. Two components do, however, seem to reappear, that is personal achievement and reflection of identity (n=10), and the feeling of belonging (n=5).

Table 16

Frequency of References to Themes of the Meaning of a Home for the Former Residence

	Former dwelling	
Themes	Number of comments	Rank
Work, efforts and investment	29	(1)
Self-achievement – personal fulfillment	24	(2)
Attachment to family past	24	(2)
Relaxation, closeness to nature	23	(3)
Stages or life cycles	19	(5)
Feeling of belonging	19	(5)
Identity and social status	18	(6)
Control of interactions and social pressures	15	(7)
Centre of daily activities	15	(7)
Continuity	14	(8)
Freedom and control	13	(9)
Financial security	10	(10)
Building and strengthening emotional relationships	10	(10)
Source of income	4	(11)

Several disaster victims actually mentioned having produced the plans for their new house themselves, built it to their taste, according to their expectations and needs, while others feel satisfaction in having been able to rebuild in the same place, in an environment they appreciate. We note, however, that references to those themes are much less frequent in comparison with the images the disaster victims have of their former residence.

For the disaster-stricken individuals, the sentimental value of the former residence is sacrificed in favour of the acquisition of low-risk security. They often bring up the "soundness" and the "good construction" of the new residence just like the aesthetic aspect that corresponds more to current tastes. Several disaster victims (n=8) state also that rational logic prevailed in purchasing or rebuilding the new residence. The functional or practical aspect of the new house (room divisions, architecture, proximity to services) also emerges more strongly among the respondents. The new home also corresponds to an increase in the monetary value owned and a better possibility of resale. It is, moreover, a new "legacy to leave to the children", a "new heritage" they want to pass on.

Some also mention feeling proud of their new acquisition or of having been able to meet the challenge posed by reconstruction, while others recall a feeling of relief following the appropriation of a new home that only remains to be "tamed". That

appropriation imposed by the events does, however, comprise a new definition of the habitat, fraught with rather negative images or portrayals. Thus, the disaster victims list the following aspects as integral and persistent parts of the perception of their new home:

- the feeling of strangeness;
- · the burden of having to start over;
- the nostalgia and regret for the former residence;
- the sentimental, family losses with respect to the bond with the past;
- the obligation and the chore;
- the indebtedness;
- the loss of pleasure, joie de vivre and interest in the home;
- the negotiation and the conflict;
- the end or the alteration of retirement projects;
- tensions, fatigue and physical and moral exhaustion;
- financial limitations and the changes in lifestyle or recreation.

For several disaster victims, the new home is also the abandonment of the "little paradise" for a relocation or a return "to the city" with the advantages and disadvantages that can comprise. We noted that certain disaster victims, having only recently moved into their new residence, almost immediately put it up for sale because they couldn't manage to really become a part of it or even because the presence of a

watercourse nearby made them feel too insecure to continue living there. By and large, the people who bought a new house or who rebuilt are still in a home appropriation transition period. We also noted that environmental changes interfere in the home appropriation process, making it more uncertain and more difficult.

The new residence therefore basically plays a role with respect to housing needs, and acts as a shelter. For many disaster victims, the practical and functional aspect prevails, the bond is not there. Even if it is new, attractive and well laid out, it doesn't exude the warmth of the other. It has no aroma, no atmosphere. The memories, the familiar items which offer security and bonding are missing. You live in the house, but it doesn't live in you. You don't feel at home yet, nor integrated, because the former furniture and decor aren't there any more. Everything is different, you feel lost. There isn't an anchor yet. "There's no more poetry, no heart in the new house."

It's a difficult appropriation. The other house has to be given up, the memories need to be mourned. A visiting period seems to be necessary before choosing it from within. There was a dilemma with regard to choosing the environment because people were divided between the sentimental and practical aspects.

For some, the new residence represents a temporary place, a transition, because they are thinking of obtaining housing for themselves as soon as possible in a

more suitable environment. They are suffocating in this universe because they no longer have the former privacy, space, greenery and peacefulness. "We rebuilt to survive, it's not the same decor anymore."

The disaster victims were searching for a new residence with a list of criteria which matched the image of the former. However, they were forced to give up many of them, while still trying to find similarities suggestive of the past: a fireplace, a cathedral ceiling, large rooms, a wooded lot, a field, a private yard, a view of a watercourse or of the Saguenay. In almost all cases, there was a great deal of renunciation and resignation regarding the new residential reality.

However, a few disaster victims improved their lot, either because the house no longer suited them or because they were ready for a change in environment as their needs were no longer the same. "You have to make the best of a bad situation." The new house was newer, more luxurious, better suited to their present needs. Others changed environments, not without sorrow and heartbreak, for purely rational grounds: transportation savings, proximity to work, to the children's school and to urban services.

They were very aware that it was necessary to invest in recreating an atmosphere and warmth, to give the house a personal touch, but they weren't quite there. They needed to give themselves time to forget and recharge their batteries.

Three respondents who rebuilt their residence according to the same plan as the former mention that this solution did not succeed in making them find the former atmosphere:

Friends who come don't have the same feeling anymore [...] it's no longer the same river [...] the house assumed more value with the river.

It's colder, there's no warmth, no atmosphere; even in the summer it's boring [...]

[...] the house is more spacious, but we no longer have the natural environment and the river [...]

We miss the former environment.

Some, who were able to preserve or recover various personal items, mention that they feel more familiar with their new residence: "We find a bit of ourselves with the items we had [...]" What also seems different is the need to take action in order to protect themselves from future floods: "[...] the height was raised to save the first floor if another flood were to occur [...]"

C. FEELINGS EXPERIENCED REGARDING THE FORMER AND NEW RESIDENCES

When the disaster victims speak of their feelings about their former and new residences, they do so in two ways. Initially, individuals questioned recall their former residence before the floods occurred and after that, they bring up what they feel about their former residence following the disaster. Then they mention the positive and

negative feelings experienced with regard to their new residence. These feelings are presented in Table 17 in descending order of the frequency according to which they were mentioned.

The former residence, in the pre-disaster period, is associated generally with happy feelings and events. Thus, the disaster victims initially recall "the good years", "the good times", "the pleasure of being alive". Then they refer to relationships marked by love and affection:

I got along well with my father-in-law who lived in the house.

It was our love nest.

It was pleasant to receive [...] and entertain guests here.

Romanticism and beauty are also feelings which are found in the concept of the former home when some highlight the magical aspect of the house surrounded by its heavenly decor: "the mist on the lake in the morning [...], the brightness [...] inside", and others mention the "enchanting and romantic side of the house" or the "lost castle".

The lost peacefulness and privacy are also what they regret more:

[...] a place to relax [...]

It was like a boat with the sound of the water [...]

The fireplace in the living room [...]

The big deck where the children would play [...]

Table 17
Feelings experienced by the Disaster Victims regarding their Former and New Residence

Former residence	Feelings during the pre-disaster period Happiness and joie de vivre Love and affection Romanticism and beauty Peacefulness and privacy Comfort Security Integration	Feelings experienced following the disaster Dispossession and loss Nostalgia, tedium and regret Destruction and ruin Powerlessness and resignation Sadness Mourning and death Pain and sorrow Anger and rage Disenchantment and destruction of lifelong projects
New residence	Positive feelings Comfort and quality Well-being and freedom Novelty Security Efficiency Peacefulness and serenity Mutual aid and generosity Gaiety	Negative feelings Disorientation and strangeness Depersonalization and detachment Loss Obligation, insecurity and impoverishment Regret and resignation Transience Fright and fear Loneliness Haste

The feelings of comfort show through the reference the disaster victims make to the layout and number of rooms, to the interior and exterior space and "conveniences" they had, while security is associated with life far from the city, with nature and the familiarity of the neighbourhood. The residents' integration into their residence and their environment is also a feeling which seems important:

We were one with the landscape [...]

[...] we were integrated.

After the floods, the feelings of dispossession and loss are above all what mark the image of the former residence. The losses do not refer solely to the material aspect: "It is the loss of the environment to which we belonged." What disappeared were our past, our memories, our activities, our good relationships with our neighbours and our comfort.

A childhood dream that crumbled.

We still think about the things we had [...]

My big new living room [...]

Afterward, what are mentioned are the feelings of nostalgia, tedium and regret that involve the house as much as the surroundings:

[...] it's not the same exterior anymore, some houses are gone [...] some neighbours [...]

Sometimes I look back at the photos of the house [...]

[...] life in nature [...] the nostalgia of picking raspberries, strawberries [...] of the view of the river [...]

Images of ruin and destruction also remain present:

What comes back to my mind constantly is the image of the house in ruins and demolished.

The image that comes back to my mind often [...] is the house floating in the water [...]

[...] the dishwasher that was sliding across the floor [...]

The feelings of powerlessness and resignation are also confirmed by the respondents:

We left, telling ourselves that it was part of the past [...]

[...] I turned the page [...]

The disaster victims also mention the feelings of sadness, bereavement and death as well as pain and sorrow when they think back to their former residence:

It's a bereavement to go through [...] crying.

[...] every day I pass in front of the gaping abyss, with sorrow [...]

[...] a death [...] it's like losing a loved one [...] a period of grieving we must pass through [...]

Anger and rage are also feelings that come to the disaster victims' minds when they think back to their former residence: "[...] the frustrations, we went through them for three days [...] during the demolition." For some, there was also a feeling of disenchantment and destruction of lifelong projects:

[...] it was our retirement fund [...]

[...] I could have taken advantage of it during my retirement [...] my husband lost his spot for creating his masterpieces [...]

Regarding their new residence, the disaster victims experience more negative feelings than positive feelings. Moreover, certain feelings about the former residence are again mentioned in relation to the new residence. Thus, the feeling of comfort appears at the top of the list even though it seemed to be given less importance in the former residence. The feeling of security also remains present whereas well-being and freedom are mentioned frequently by the disaster victims. Their new residence is first and foremost a place where they feel secure. Peacefulness having returned, the disaster victims appreciated the serenity of the premises. Yet, the image of the former residence remains omnipresent. That is why they feel disoriented in the new residence. It is not a haven. It is something totally different: a new world where one does not yet really feel at home. It therefore represents more of a loss than a gain. They live there because they have to and they feel poorer there. This residence is also a temporary place where roots have not yet begun to grow.

We haven't had time to enjoy our residence [...] it's a place to house us, collect our things [...] We are thinking, everything is temporary.

D. ADVANTAGES AND DISADVANTAGES OF THE FORMER AND NEW LIVING ENVIRONMENT (HOUSE, PROPERTY AND NEIGHBOURHOOD)

To compare the concept of one's home in relation to the habitat environment, also means to refer to the elements that were or were not appreciated in the former living environment and that are considered positive or negative in the new environment.

Concerning the house, the analysis of Table 18 permits us to observe that more elements were appreciated in the former residence than in the new residence.

However, the new residence presents more positive user-friendly attributes: among other things which are appreciated in it are the space available, the quality of the construction and the insulation and soundproofing.

The image delivered by the residence acquired, modified or created is a statement of its occupants' own personalities and individuality. Appearance and aesthetics assume an important place in it. What that image reflects is the expression of personal tastes, hopes, values, anticipated well-being and individual creativity. References to this theme (individualization and decoration) are much more present in the former residence as compared with the new residence. Thus, the respondents mention:

```
[...] we had arranged and decorated it according to our taste [...]
[...] it was the personal touch [...]

It was in my image [...] because of the renovations.

I liked its non standard aspect [...]
[...] it was the old style [...] the way I like it.

There were lots of paintings and sculptures [...]
[...] it was handcrafted.
```

The natural work of art reflected by the panoramic view also seems to be an important element associated with the decoration:

```
[...] the beauty of nature through the window [...]
```

[...] the view of nature on all four sides [...]

Mentions of "brightness" and "light" are also recalled, as often for the former residence as for the new residence. The architecture, more specifically the "cathedral ceiling", the "height of the living room ceiling" and the "multi-level layouts" also figure among the appreciated elements. The respondents also remembered the satisfaction of having a rustic trait in the former residence. The beauty of one's home contributes to filling the appearance and aesthetic category:

```
[...] it was a palace [...]
```

[...] a dream house [...]

It was beautiful [...]

It was a beautiful house [...]

Living in and occupying a place is also the response of the latter to the use we wish to make of it, to the time we can devote to it and to the user-friendliness we hope to find there. The items referring to the second classification were therefore grouped under the term "user-friendliness". What are found in it are therefore aspects which are related more to the rationality and efficiency. The possibility of having sufficient interior space is the element which seems to have priority. It is, moreover, more present in the

new residence as compared with the former residence. The presence of a back-up heating system was an element which was much appreciated in the former residence. That it was not mentioned as often in referring to the new residence may be explained by the fact that the installation of this type of heating is above all considered by many as a costly personal option not necessarily having priority when settling back in. The quality of the construction as well as the insulation and the soundproofing were also noted often by the respondents as appreciated elements in the new residence, although they were not for the former residence.

Table 18
Frequency of the Elements appreciated
In the Former and New Residences

		Number of	f mentions
Categories	Themes	Former	New
	,	residence	residence
Appearance and	Individualization and decoration	30	10
Aesthetics	Panoramic view	12	5
	Light and brightness	7	6
	Architecture	4	5
	Rustic aspect	4	0
	Beauty	3	2
	Subtotal	60	28
User-friendliness	Interior space available	9	17
	Airtight fireplace or stove	15	5
	Functional aspect of the residence	9	10
	Adequate windows	7	9
	Recent, quality construction	0	15
	Adequate insulation and soundproofing	0	14
	Size of the rooms	8	4
	Number of rooms	4	7
	Arrangement and layout of the rooms	9	1
	Comfort	6	4
	Presence of patio, deck or sunroom	4	5
	Ease of maintenance	2	7
	Practicality of the kitchen	5	3
	Exterior conveniences	5	3
	Modern or renovated bathroom	4	2
	Interior storage spaces	3	2
	Finished basement	0	4
	Subtotal	90	112

...continued

Table 18 (continued)

		Number of mentions	
Categories	Themes	Former Residence	New residence
Socialization	Warmth and welcome	12	1
	Feeling of home	9	2
	Privacy and peacefulness	6	2
	Security	0	6
Subtotal	27	11	
Total element	s mentioned	177	151

With respect to the rooms in the house, the size of the rooms seems to be more appreciated in the former residence than in the new residence. A greater number of rooms available seems, however, an element which contributes to a greater satisfaction in relation to the new residence. The ease of maintaining the premises is also raised more often in the new residence as compared to the former residence.

The feeling of a home is also a response to the needs for warmth and welcome, for feeling that there is a place where we can do as we please. What are also sought in it are the feelings of privacy, peacefulness and security. For those feelings as a whole, except for the sense of security, more are mentioned in referring to the former residence.

Concerning the disadvantages or elements less appreciated by the respondents in their former residence and new residence, the total number of mentions amounts to 88. Eleven respondents maintain not identifying less appreciated elements or disadvantages relating to their former residence. Similarly, six people did not mention

any disadvantage pertaining to their new dwelling. The least appreciated elements identified by the respondents appear in order in Table 19 and were not categorized. The lack of conveniences in the former residence and the difficulties maintaining it are the negative elements which were mentioned the most often by respondents when referring to their former residence. The fact of not yet feeling at home is far from the most frequent negative element for the new residence.

What was most appreciated about the former property were the resort and riverside aspects of the sites, or in other words, the presence of natural trees and fruit trees, the proximity of the river, the surface of the property, as well as the peacefulness and privacy of the locations. Just as for the house, we note that the respondents mention a higher number of elements appreciated for the former property (n=168) as compared with the new property (n=55). Table 20 summarizes the frequency of the qualities named by the disaster victims in relation to their former or new property.

Sixteen respondents do not mention any element not appreciated in relation to their former property, while this situation is brought up by only one respondent for his new property. One respondent also says that he is presently incapable of identifying the disadvantages of his current property. The disaster victims regret the fact that their new property has few trees. Moreover, a significant number of respondents (n=12) are still fearful of landslides or periods of high water and find it regrettable that their present property is not landscaped. Among the disaster victims, seven were afraid of the river's

high water levels or landslides on their former property and the presence of insects in the summer was considered unpleasant by six of the respondents.

Table 19
Frequency of the Disadvantages of the Former and New Residences

	Number of	f mentions
Themes or elements mentioned	Former	New
	residence	residence
Not feeling at home	0	15
Lack of conveniences	8	6
Renovations to be done	6	0
Maintenance difficulties	5	1
Lack of interior space	0	5
Absence of basement or unfinished basement	5	0
Absence of decoration	0	5
Non-existent or inadequate foundations	3	1
Limited number of rooms	3	1
Location far from work or services	4	0
Presence of tenants	3	0
Loss of the panoramic view	0	3
Absence of fireplace	0	3
Lack of privacy	0	3
Difficulties related to water supply and sewage removal	3	0
Inadequate soundproofing	0	2
High property taxes	0	2
Inadequate insulation	1	0
Total	41	47

Table 20
Elements Appreciated in the Former and New Properties

	Number of	f mentions
Themes or elements mentioned	Former	New
	property	property
Presence of trees	30	8
Proximity to or view of the river	. 26	9
Lot area	19	9
Flowers and rock garden	21	2
Privacy and peacefulness	12	7
Custom layout	11	8
Vegetable garden	12	4
Panoramic view	10	3
Bird watching and feeding	8	2
Lawn	5	2
Property and house harmony	6	0
Practicing water sports	5	0
Swimming pool	3	1
Total	168	55

The tendency toward identifying more positive aspects for the former neighbourhood than for the new neighbourhood continues in the third home dimension studied. Thus, the disaster victims mentioned more elements appreciated (n=82) than elements not appreciated (n=49). Two respondents mentioned not yet knowing what they did or did not appreciate following the relocation. The most appreciated element both before and after the floods seems to be, above all, the presence of friends, relatives and good neighbours with whom they have good relationships. The disaster victims also recall the good understanding, mutual aid and feeling of security from the good relationships as major elements appreciated in relation to the former or current neighbourhood. Next are the aspects associated with peacefulness, privacy and discretion that enter into consideration. It must also be noted that the proximity of the

services is the positive element the most often mentioned by the disaster victims living in a new neighbourhood.

Table 21
Frequency of the Disadvantages of the Former and New Properties

	Number of	f mentions
Themes or elements not appreciated	Former property	New property
Fear (of landslides, the river, high water)	7	12
Absence or lack of trees	0	13
Full landscaping to be redone	0	12
Lack of privacy	1 _1	10
Presence of differences in ground level	5	3
Presence of insects	6	1
Absence of lawn (or lawn covered by dried silt)	1	6
Absence or small size of property	1	5
Maintenance difficulties	3	2
Wild woodland	2	0
Total	26	64

Table 22
Frequency of the Elements Appreciated in the Former and New Neighbourhoods

	Number of	f mentions
Themes or elements appreciated	Former neighbour-hood	New neighbour- hood
Presence of friends, relatives and good neighbours	30	15
Peacefulness, privacy and neighbours' discretion	25	13_
Proximity to or closeness of services	10	16
Resort sector	12	3
Neighbourhood's cleanliness and good maintenance	2	1
Bonding with and belonging to the neighbourhood	3	11
Total	82	49

Table 23
Frequency of the Disadvantages of the Former and New Neighbourhood

	Number of	f mentions
Themes or elements not appreciated	Former neighbour- hood	New neighbour- hood
Presence of neglectful or unpleasant neighbours	8	4 .
Lack of privacy	1	10
Feeling of being a stranger or not integrated	0	10
A lot of traffic	1	6
Distance from services or from work	4	2
Less secure environment	0	5
Lack of freedom	1	3
Total	15	40

Certain unappreciated elements are also brought up by the disaster victims. It is important to stress that 21 respondents were unable to identify any disadvantage in the former neighbourhood* while eight people report the same situation concerning their new neighbourhood.

^{*} It may be a matter of the former layout of the neighbourhood or its former dynamics since 15 people still live in the same neighbourhood.

CHAPTER 6

INTEGRATION INTO A NEW NEIGHBOURHOOD

A. REASONS PROMPTING THE DISASTER VICTIMS TO CHANGE

NEIGHBOURHOOD OR MUNICIPALITY

The decision to change neighbourhood or city was made by 14 disaster victims, while seven were evacuated by the authorities. Nineteen persons rebuilt their residence on the same property. There are various reasons that prompted the disaster victims to change living environments. For many, it was the impossibility of rebuilding in the same location as their property had been identified as a "flood zone" or the pure and simple disappearance of their land that forced the disaster victims to change neighbourhood or municipality: "[...] we were forced by the circumstances [...] we had no more land [...] the site was declared a flood zone [...]" For others, even if the land could be recovered, the cost of redeveloping it was exorbitant: "[...] it wasn't the construction of the house that prompted the move [...] but the enormous costs to invest in the property [...] it would have been necessary to move back from the river [...]" The economic aspect therefore played a major role in the decision to rebuild, buy a new house or opt to rent an apartment:

[...] we could have had a piece of land in the same sector after the reconstruction, but it was too expensive [...]

- [...] it was too costly to rebuild [...]
- [...] the house was a total loss [...] and under-assessed [...] so we couldn't have rebuilt it as it was, with the renovations [...]
- [...] given our age, we didn't want to assume any debts [...]

Some people also bring up the municipality's lack of support or interest in encouraging them to remain in it:

- [...] we weren't treated well by the municipality [...] we didn't feel supported [...]
- [...] the municipality didn't take steps to keep us, or to offer us any property [...]

The major amount of work, and of problems that building a new residence can represent also played a role in the disaster victims' choice to relocate. When this aspect is put into perspective with the individuals' physical and psychological state of health, the scale often tips in favour of purchasing or renting:

- [...] we couldn't see ourselves building a new house [...]
- [...] I had had a heart attack in 1996 [...] I didn't feel like starting over anymore [...]

I no longer had the desire [...] nor the energy to rebuild [...]

Substantial changes in the environment were also a reason that discouraged many disaster victims from rebuilding in the same location:

- [...] we weren't interested in returning there because nothing beautiful was left [...]
- [...] it wasn't the same decor, there's nothing left [...] only some rocks [...]

Everything was gone, I didn't want to go back there [...] it didn't have the same atmosphere [...] there was only desolation and sadness [...]

The loss of the residence, personal items and mementos that were there is also tied to the decisions made by the disaster victims to rebuild or not to rebuild in the same location. When they disappear, an important part of the past seems carried off with them: "I had no more links with the setting [...] after the disappearance of the memories of my husband [...] I had nothing left to hold me there [...]"

Other more positive aspects also enter into consideration in the choice to relocate. When everyday activities seem facilitated by relocation, the disaster victims remember their departure from the neighbourhood or the city more positively:

[...] the children could be closer to their school [...] and I could be closer to my work [...]

We took the functional aspect into consideration [...] studies, recreation, work [...]

Some also refer to the waiting periods to know if they would be able to rebuild in the same environment and the feeling of urgency to relocate:

[...] we would have had to wait a long time [...]

[...] we were in a hurry [...]

Others mention their fear regarding the watercourse: "[...] I was afraid of the river [...]".

B. DISASTER VICTIMS' FEELINGS ABOUT BEING FORCED TO CHANGE THEIR LIVING ENVIRONMENT

The disaster victims who found out from public authorities that it would be impossible to recover their land or to be able to move back into the same environment experienced mixed feelings. The prevailing sentiments at the time of the announcement of the authorities' decision were above all disappointment and sadness:

```
[...] we had nothing left [...] we had no choice but to find something else [...]
```

It was a shock to hear the decision [...]

[...] it was heartbreaking to sign the decree papers [...]

Other disaster victims say that they were resigned and submissive in the face of the very evidence of the loss of their house or their property:

```
[...] we were meek [...] we were resigned [...]
```

[...] we had no choice [...] we had to obey [...]

We didn't have time to appeal [...] we submitted [...]

[...] when we signed, we were transferring an empty hole in the river [...] actually, there wasn't any decision to be made [...]

Some had an intense reaction of anger, frustration or even refusal: "We felt manipulated [...] not a word to say [...] no discussion [...] I didn't want to take the cheque. I felt I was being told to shut up, that I had nothing to say [...]" A certain sense of relief also emerges from the disaster victims' comments following the announcement of the possibility of recovering certain losses through government financial assistance:

[...] the compensation awarded was received with joy [...] it was settled quite quickly.

We were satisfied with the settlement, given the circumstances [...]

The sense of fear, as well as the fatigue and exhaustion, also played a part in how the authorities' decision was received, and those feelings seem to have had a mediating effect on the repercussions of the decision:

- [...] we had made the decision never to return close to a river [...] we were too afraid and we had lost everything [...]
- [...] we would not have stayed there because of the shock of the river [...]

 I could have appealed the decision [...] others did [...] but I didn't have the

energy to do it [...]

[...] we didn't want to make a fuss so that they would change their minds [...] we fought hard enough to recover, clean up [...] the steps [...] were hard enough [...] we were tired [...]

C. INTEGRATION MECHANISMS USED BY THE DISASTER VICTIMS

Most of the disaster victims became integrated into their new neighbourhood on their own. They indicate the low involvement of the neighbours, which, however, did not seem to have created a problem for the disaster victims. A few received a polite or friendly visit from one or two neighbours who offered their help. The move into the new residence was thus mainly accomplished with the participation of family and friends.

The disaster victims stated that they were concerned about their privacy, their autonomy and their independence. What is essential for the respondents, is the need to maintain respectful, reserved and cordial relations with their neighbours.

It is necessary to point out the fact that several disaster victims moved into their new residence discreetly, either in the autumn or during the following year, when the flood crisis and the initial wave of sympathy had passed.

The fact that there had been a certain time lapse between integration into the new environment and the disaster also seems to influence the welcome received. Some disaster victims recalled, for example, that they had not been recognized as disaster victims by their circle of acquaintances since several months had elapsed between the disaster and their arrival in their new residential neighbourhood. Therefore, they mention not having received the attention and support from which

certain people who were identified as flood disaster victims were able to benefit in the immediate aftermath of the disaster.

The adjustment to the new residence and to the new environment depends at the same time on each individual's personality, that is their moral strength, their beliefs, their values and their experiences, and on the wise choice of the home, according to their criteria and needs. For example, the disaster victims who were capable of appreciating the attributes of their new living environment found it easier to mourn their former neighbourhood and allow themselves to enjoy the present. For those who returned to the city, some elements are more appreciated: less of a need for transportation, a more active social life, a closer work place, proximity of the services and recreational activities for the family.

Becoming integrated into a new residential environment is a little like facing the unknown, and feelings of insecurity, but it is also the discovery of new wealth a new habitat may possess. That assumes a whole range of changes in personal organization and relationships with others. Certain factors were identified as facilitating or limiting elements for a smooth integration into a new environment in a disaster-related relocation context. The main factors selected by the disaster victims are presented in Table 24.

D. DIFFICULTIES ENCOUNTERED BY THE DISASTER VICTIMS WHO MOVED TO ANOTHER NEIGHBOURHOOD OR ANOTHER MUNICIPALITY

Changing neighbourhoods, when such a move is not part of one's plans, our life projects, can correspond to a real uprooting. For several, it is also the imposition of a forced reduction in everyday contact with loved ones:

- [...] the distance from the family, parents, brothers and sisters [...]
- [...] we moved away from our universe, our home [...] they can no longer visit us easily.

This brutal change is often associated with a shock situation and with the triggering of the grieving process: "We went from white to black [...] it's the fact of no longer having a choice [...] nowhere to go anymore [...] we'll never get back what we had [...] the country with all that it represented [...]" In the context of a disaster in which the people lost their house, their property, their personal possessions and their familiar environment, relocation also corresponds to a second disaster associated with other losses.

Table 24
Factors facilitating and limiting a Smooth Integration into a New Living Environment

Facilitating Factors	Limiting Factors
 A warm reception, mutual aid and cooperation from the neighbourhood The continuation of support activities by significant others, especially the family Finding former acquaintances in the new neighbourhood Moving into a neighbourhood that is familiar or known 	Limiting Factors Remote attitude of the neighbours Integration during the winter (creates an obstacle when establishing contact with the neighbours) Relocating in haste, without preparation Starting renovations immediately on arrival in the residence Distance from the family Loss of neighbours and friends
 Relocating in a residence which meets one's expectations Finding some people in the neighbourhood who experienced the same situation Moving into a recently established neighbourhood where many individuals are somewhat "newcomers" The children's quick and easy integration into their new environment Preserving one's lifestyle Celebrating the arrival in the new neighbourhood The municipal authorities' welcome and facilitating financial provisions Financial and material aid Leaves allowed by the employer 	Moving into a dwelling which does not meet one's expectations or needs

Other elements also proved very difficult as part of being relocated to a new neighbourhood. Those elements are the following:

• Separation from neighbourhood friends: "[...] everything was difficult [...] the distance [...] from the friends", "[...] I found it hard [...] I had good friends [...] one in particular with whom I used to chat a lot [...] there's an emptiness [...]", "[...] it's the loss of good friends [...]", "[...] I moved away from a great friend [...]"

- The loss of a sense of security: "We don't have the security we had before [...] we're isolated", "It was necessary to install a security system [...] lock the doors [...] we weren't used to that [...]", "[...] our sense of security disappeared [...]"
- The change in lifestyle: "We can't take the same walks anymore [...] with the dog [...]", "It's not the same life anymore [...] especially in the summer [...]", "it was leaving our environment and finding ourselves in a tight space [...] everyone sees you [...]", "it's returning to the city [...] with the inconveniences [...]", "[...] not drinking a morning coffee outside in your pyjamas anymore [...]"
- The financial constraints (financing, indebtedness) associated with relocation: "[...] we changed our style of living [...] the money has gone into buying a new house [...]", "we invested all our savings [...] we have a tighter budget than before [...]", "[...] it's the indebtedness [...] we were forced to borrow from a finance company as the credit union and the bank didn't want to lend us money to take out a mortgage [...]", "[...] we now have a great deal [...] a lot of financial stress [...]"
- The alteration in the desire to invest in creating friendships and social relationships: "We have less of a desire to invest in the neighbourhood, to create relationships [...]", "our social life was turned upside down [...] we were very involved in social and recreational organizations [...]"

• The loss of the feeling of belonging: "We were uprooted [...] we had accepted the idea that we were going to die there [...]", "[...] it's the distance from the services and from people we knew [...] from the credit union [...] the grocery store [...]", "we lost the environment we belonged to [...]"

E. FEELINGS ABOUT THE FORMER AND NEW ENVIRONMENTS

More than half (12/21) of the respondents who relocated to a new neighbourhood, or who saw their neighbourhood considerably altered as a result of the floods, consider themselves losers at the environmental level. Five people say they are somewhat divided on the question of expressing an opinion on the losses or gains recorded in relation to this, while two disaster victims feel that they have made gains associated with a house which better meets their requirements and that they enjoy more advantages in their new neighbourhood.

The people who deem themselves losers refer above all to the loss of privacy linked to the proximity of residences and neighbours, and to integration difficulties and the lack of security:

- [...] the neighbours are too close [...]
- [...] the neighbours are closer [...]
- [...] drawbacks of living with neighbours all around [...]

It's chillier [...] not the same mentality [...] the cliques [...], the family groups [...] we feel like we are strangers [...]

We don't know the neighbours [...]

It's less secure [...]

It will be necessary to rebuild in terms of safety [...]

When the disaster victims bring up feelings associated with their life in the former neighbourhood or in their transformed neighbourhood, the feelings of sadness, nostalgia and regret are what prevail through their references to the lost peacefulness, continuity and integration:

[...] life [...] the vitality of the children on the street [...], the short walk to the corner store for sundries [...] walking to the corner for the mail [...] the security and mutual assistance of the neighbours [...]

It's the memories of the lifestyle [...] the ease of living [...] the security [...] the daily routines [...] meeting familiar people [...] living in your own world [...]

[...] Saint-Jean road was our home [...] the place where we had all our dreams [...] nature [...] the setting [...]

The neighbours used to come and talk to us, because everyone knew each other [...]

It's missing the people [...] the sadness [...] we miss the river [...]

Some lean towards denial or isolation from the feelings experienced:

We try not think about it anymore [...] we tried to forget it in order to make it easier to leave it [...] to avoid hurting ourselves [...]

We are not trying to turn back the clock [...] you have to forget and not think about it anymore [...] a bad dream [...] the past [...]

It causes us anguish and creates painful memories [...] when we think of everything we lost [...] we prefer not think of it and we are trying to distance ourselves from the thoughts that depress us [...]

Others mention the uprooting and the impression of being strangers in their current environment:

The people from our street are all scattered [...] we don't recognize the environment anymore [...] everything has changed [...] it's another world [...]

Our home no longer exists [...] we are scattered [...]

[...] we lost our sense of belonging [...]

[...] it's an unfamiliar neighbourhood [...]

CHAPTER 7

DISASTER VICTIMS' RECOMMENDATIONS

The painful experience of a major flood and that of forced relocation place the people who have lived them in an excellent position to make recommendations to individuals and to government or community authorities. Through having learned certain lessons from their experience and having drawn certain conclusions, the disaster victims have produced some items for reflection and some relevant comments aimed at proposing proactive or remediation actions in the event of a disaster and relocation. These recommendations are meant to: 1) inform and guide the people who potentially could sustain disaster-related damages; 2) to improve the aid and support services dispensed by the community and relief agencies, and 3) to improve disaster assistance programs and policies dispensed by the government authorities.

Addressing the population at large or those who may be exposed to relocation, the disaster victims suggest, based on their experiences, certain provisions or proposals which can facilitate the relocation process and the recovery of disaster victims' individual and family well-being (Table 25).

What the disaster victims suggest the most strongly is to stand back from the events, to avoid acting in haste, even if the context lends itself to acting in haste, and to

make a conscientious analysis of all the possibilities or possible choices regarding the important decisions to be made in the framework of relocation. They further mention the priority that must be given to preserving one's physical and psychological health: proper housing, eating, sleeping, allowing oneself the necessary relaxation time and not overestimating one's strength.

Table 25 Major Suggestions and Proposals For Disaster Victims

- Allow yourself the necessary time to think.
- · Make physical and psychological health a priority (individual and family).
- · Adopt or modify attitudes where necessary.
- Make sure there are sources of support.
- Know, preserve and defend your rights.
- · Create a feeling of home (even in the temporary dwelling).
- Identify your real needs and those of the family before the final relocation.
- · Combat isolation.
- · Preserve your projects for the future and continue to develop projects.
- Group the family together and strengthen the bonds.
- · Resume daily activities as soon as possible.
- · Develop a personal emergency plan.

In order to overcome the trial of the loss of the home and the uncertainties associated with relocation, the disaster victims also suggest adopting a certain flexibility with respect to events. Far from suggesting a defeatist attitude, the respondents mention that a positive, optimistic, confident and objective attitude helps greatly in overcoming the shock. Similarly, the fact of keeping one's "cool", becoming impervious to negative comments and value judgments, being open to facing one's values and changing them also seems to be moderating element. Some people also mention the need to learn to put pride aside and willingly accept financial and material

assistance from various sources. The emotional and social support also play a major role. To that end, various sources of support, consolation, listening and dialogue were appreciated: the health professionals, volunteers, loved ones and civilian and religious authorities.

Knowing your rights and making sure they are respected, that is also a recommendation the disaster victims made: it is important in fact to obtain the information from reliable sources, to consult a competent professional legal or financial advisor when necessary, to demonstrate tenacity and to recognize the individuals who may be trying to take advantage of the confusion or vulnerability in which disaster victims may find themselves. The fact of recreating as quickly as possible a feeling of home in the temporary residence and then in the final residence, also seems to mitigate feelings of the unknown and strangeness, and thereby increases feelings of comfort and security. Thus, after having identified and moved into comfortable and private accommodations, several disaster victims suggest personalizing and customizing that location.

The real needs of the individual and the family must also be properly identified before opting for a final relocation. It is possible to listen to advice or attempt to find out other people's opinion, but one must above all allow oneself the option of the final choice.

Isolation can also contribute to compromising the rehabilitation process. The disaster victims noted the need to get close to friends, family or other disaster victims. The need to preserve the desire to carry out projects, the strengthening of the couple's and the family's bonds, the development of a sense of security in the children as well as a hasty resumption of daily activities and "routine" during the relocation process were also mentioned. Adopting a proactive vision, a few disaster victims also spoke of the obligation to equip oneself with a personal emergency plan in the event of a disaster.

With respect to suggestions which could be made to aid and relief agencies as well as to the volunteers working in them, the disaster victims first mentioned the extraordinary work performed by them. In most cases (n=29/40), the disaster victims had only praise and comments of satisfaction to make regarding the investment and attention they received. What is suggested is to maintain first and foremost the same understanding and generous attitude. What they would like to see simplified on the other hand are the administrative and bureaucratic aspects (number of forms, being referred from one person to another, etc.), as well as the long waiting periods, spent in uncomfortable places or "in line", before being able to meet someone for different needs or for information. They also suggest giving the disaster victims more time to make purchases with the vouchers and to implement measures so that the purchases are conducted in a more discreet context (the voucher exchanges at the cash registers in front of other customers embarrassed many people). They mention, moreover, that it

would be beneficial for disaster victims of disasters that the assistance offered be prolonged and their real needs be re-evaluated after a certain time, both for the material and psychological aspects. A few respondents also reported some situations where the integrity, good judgment or even the attitude of certain volunteers were lacking. To that end, they suggested increasing the training of volunteers responding to disasters. In addition, some disaster victims were of the opinion that the aggregate of the amounts collected by the Red Cross for the specific purpose of coming to the aid of the flood disaster victims should be distributed to them, especially to those who are the most destitute (Table 26).

Table 26 Major Recommendations made by Disaster Victims to Aid Agencies

- Maintain an understanding and generous attitude.
- · Simplify administrative procedures.
- Reduce waiting time.
- Offer comfortable meeting sites.
- Allow the disaster victims more time to make their purchases.
- Guarantee more discretion in the distribution and use of the vouchers.
- Extend the financial support and psychological assistance period.
- Increase the training of volunteers so as to facilitate their response in an emergency.
- Distribute all of the donations collected to the disaster victims and especially to the most destitute.

Certain directions are proposed to government authorities at various levels in order to improve the efficiency of the policies, programs and measures put in place to respond to the emergency and the needs of the people affected. They also suggested a set of recommendations for enhancing the assistance affected individuals need in order to resume living normally as quickly as possible in the post-emergency and

relocation period. Those suggestions encompass three operational dimensions: planning, management and follow-up. The recommendations made by the disaster victims have been grouped according to the various themes in Table 27.

Reactions and the recommendations made to government authorities are very diverse, mixed and sometimes very conflicting, ranging from satisfaction to aggressive indignation. People who were satisfied with what the government offered more easily recognize the limits of the Crown and its inability to compensate the disaster victims for everything they had lost. The compensation offered in relation to the property value and the opening created for an upward re-assessment demonstrated a reasonable effort made by the government.

On the other hand, people who had difficulty settling their file and who lost considerably with respect to the real value of their property and their possessions had many more recriminations to make. Several disaster victims made scathing attacks on administrative requirements (surveys, building permits, taxes on materials), delays, pettiness, administrative errors, etc.

Table 27
Major Recommendations made to
Government Authorities

Operational dimensions	Disaster Victims' recommendations
Planning	Improve and update emergency response plans more regularly.
	Make the populations aware of the existing emergency measures and involve them more in the development of those measures.
	 Improve the information, the information procedures and the processes pertaining to the evacuation for the purpose of increasing the population's safety.
	Train more local resources for intervention in the event of a major disaster.
	Provide basic psychosocial intervention training to civil servants who have to interact with a disaster-stricken population.
	Distribute more transparently the responsibilities of each of the emergency response groups or organizations.

...continued

Table 27 (continued)

Operational dimensions	Disaster Victims' recommendations
Management	At the local level, decentralize the damage assessment and financial assistance distribution measures.
	 Reduce the waiting times for the assessments and compensation. Simplify the general bureaucratic process.
	Avoid sending out contradictory or confusing information.
	Contemplate measures that promote greater financial assistance equity.
	More adequately inform the disaster victims of the legal aspects.
	Call upon an outside firm for house and land assessments.
	 Assume the surveying, and the notary and demolition costs incurred by relocation or reconstruction. Give priority to those whose losses are the largest.
	Put tax exemption or reduction measures in place for purchases during reconstruction and for the property taxes in the year following reconstruction.
,	Contemplate increased and longer-term aid measures in order to support the individuals in their relocation process.
Follow-up	Verify with the disaster victims what real needs still need to be satisfied at various stages.
	Perform a retroactive evaluation of the impacts of the actions taken and the aid measures dispensed.
	Adopt coherent legislation regarding the management, use and maintenance of dams or watercourses by the companies.
	Increase the accountability of the companies concerning their operating and management procedures for natural resources.

HIGHLIGHTS

The majority of the disaster victims are haunted by strong emotions.

I was like a lamb that had just been slaughtered.

I couldn't contain myself anymore as I watched the losses accumulate with the rising water. It was as if my heart was being torn out.

Why invest so much, collect so much and then lose it all.

It's a death; it's like the loss of a loved one.

Besides being physically and psychologically affected by the direct repercussions of
the disaster and by the numerous difficulties caused by its aftermath, several
aspects of the disaster victims' personal, family, professional and social life were
altered.

We have less of a desire to live.

I became completely exhausted and I had to be hospitalized for a week.

My husband is receiving follow-up treatment in psychotherapy [...] for suicidal ideas [...] and I am being treated by a psychiatrist.

 The majority of the disaster victims stated that their values have been attacked and that they are victims of other people's values.

You are lucky, you are going to have all new furniture.

The majority of the disaster victims felt they had a strong bond with their house.

That house, built in our image, it was us, it was like a sculpture that we had created.

That house, it was a little paradise [...] the most beautiful spot in the world, a dream house.

The majority of the disaster victims mention the existence of new problems
associated with their state of health or their professional life since the floods.

We aged prematurely [...]

[...] we don't have fun anymore like before, we don't have a zest for life anymore.

[...] anguish, hypertension, great fatigue.

 The majority of the disaster victims consider the floods to be a very stressful event and they were a major obstacle to completing or pursuing certain important activities.

At work, I had to be assigned to a less stressful position, because I wasn't able to be effective anymore.

 The material damages and losses appear to be a major component of the stress experienced by the disaster victims and they affect the degree of short-term and long-term psychological disturbance.

- At the time of the floods, most of the disaster victims lived in residences which were built before 1976 and had occupied them for more than ten years.
- The majority of the disaster victims suffered a total loss with respect to their house and their property.
- Close to half of the respondents own a smaller piece of property than before.
- The majority of the respondents who acquired a new residence saw its property value increase in comparison to the former home.
- Nearly half the disaster victims had to take out a mortgage.
- The disaster victims' indebtedness doubled.
- The disaster victims are of the opinion that they recovered, through the financial aid received from the public or charitable authorities, only about half of the real monetary value of what they had lost.

- The loss of income from the rental of apartments attached to the residence are among the financial damages which were not counted in the disaster victims' total monetary losses.
- The majority of the disaster victims relocated three or four times before moving into their current permanent residence.
- Most of the disaster victims took advantage of family resources during the first relocation phase.
- The disaster victims as a whole declared that they had difficulties related to the impression of not feeling at home.
- The majority of the disaster victims admit that the steps to be taken following the
 disaster proved to be difficult and exhausting and had to be carried out in a climate
 of uncertainty, worry, anguish and nervousness.
- The relocation corresponds to a second disaster associated with other losses.
- Life in a new neighbourhood means a separation, an uprooting, even bereavement.

Separation from friends, the loss of a sense of security, a change in lifestyle, financial constraints, the alteration of the desire to invest in creating friendships and social bonds, the loss of the feeling of belonging.

- For the majority of the disaster victims, the former residence is generally associated with happy feelings and events whereas the new house in stamped with negative images or portrayals.
- The move into the new residence was primarily made with the participation of family and friends.

CONCLUSION

The literature reviewed in the first part of the research reveal the direct consequences of a disaster on disaster-stricken populations and the numerous difficulties associated with it. In fact, according to the authors, the disasters include traumatizing physical and psychological injuries and deaths and have a great potential for destruction, injury and various personal, economic and social repercussions. Increase in depressive and neurotic ailments, post-traumatic stress disorder or depression, suicidal thinking, modifications of family, social and professional life are but a few of the problems that disaster victims face (Nolen-Hoeksema and Morrow, 1991; Yates, 1992; Crabbs and Black, 1984, etc.). Although certain researchers conclude that there is a reinforcement of the bonds between the affected individuals and the emergence of new solidarities (Ollendick and Hoffman, 1982), others observe a deterioration of the relational dynamics of the couples or the families (Powell and Penick, 1983; Erickson, 1976).

The initial moments of the disaster correspond to a shock and are lived as such by the disaster victims; then the relocation is also felt as an extension of it. In actual fact, the many moves during the evacuation, the subsequent temporary changes represent constraints to the disaster victims' feeling of well-being (Trainer et al., 1977; Haas et al., 1977). The residential itinerary also becomes a source of difficulties

through its influence on the disaster victims' economic, social and family activities (Trainer and Bolin, 1976). It is also interesting to note the obvious link that exists between the housing functions and the elements which create the bonds with one's home, as the residence constitutes the reflection of the individual and contributes to self-esteem (Becker, 1977). Thus, according to certain authors (Haas et al., 1977; Fried, 1963), the bond felt with the home can enhance or, conversely, constitute an obstacle to the relocation process. The extent of the home's contents (personal effects, mementos), the change of environment, and the destructive blow of the disaster are also factors which influence how that event is lived (Freedy, 1994). Other elements also seem to affect the difficulties experienced during a relocation: the social class, the many moves, the relocation to a more expensive habitat. In a nutshell, when a home is lost as the result of a disaster, the losses are greater than the gains recorded. What must be understood is that the relocation does not reflect a simple move or the free choice of a new residence. It evokes the need for a complete reorganization of oneself and the family nucleus (Ursano et al., 1994).

The interviews conducted on 40 individuals or couples who lost their house and all their personal possessions at the time of the floods contributed to the emergence of new data or meanings to add to the knowledge already acquired. They allowed touching on not only the visible repercussions of the disaster, but also the underlying meaning the principal stakeholders attributed to them. Thus, it is possible to observe that the loss or major alteration of the home or the community causes not only a state

of disorganization and disorientation among the disaster victims, but, for many, it corresponds to the destruction of part of their life, to a bereavement for the years of work invested in building the home, for a way of living and the building of a social universe. "We were uprooted, stripped," a disaster victim would say.

In short, being a disaster victim is like experiencing the shock of feeling dispossessed. "You lose everything all at once: your house, your property and all the items that have sentimental value, like your personal mementos from your marriage, the birth of the children, trips, possessions bequeathed by your parents, from your childhood and your adolescence." Also, "What you lose is part of your memory." Although the former house represented self-achievement and the realization of a dream, the new residence is tinged with rather negative images or portrayals. The feeling of strangeness, the burden of starting over, the nostalgia and regret for the other home, the indebtedness are a few of the factors that explain the existence of those painful feelings. But be that as it may, for several disaster victims the new residence basically plays a housing and shelter role, sometimes even a transition site. In short, what mark the relationship with this residence are above all the aspects associated with rationality and efficiency.

Integration into a new neighbourhood assumes the adjustment to a new physical, social and spatial environment and may, for some, constitute an uprooting, even a shock. "We never get back what we used to have." This change assumes an

adjustment in terms of personal organization and relationships with the others. Certain factors seem to have had a constraining effect, such as the distance from the family, the loss of friends, moving into a dwelling which does not meet one's expectations or needs. On the other hand, other factors helped facilitate the relocation: a warm welcome, the children's easy integration into their new environment, the facilitating reception and financial provisions of the municipal authorities, to mention only a few. Nevertheless, arrival in the new residence was mainly accomplished with the participation of family and friends, other people in the neighbourhood were not very involved in the process. In short, the disaster victims felt they had made their integration into their new environment on their own.

The disaster victims made some recommendations to help disaster victims and the various players involved. Furthermore, to the people who are forced to relocate, they suggested taking a step back from the event before undertaking important steps. They also stressed the need to take care of oneself and one's physical and psychological health, and they suggest a certain flexibility with regard to oneself. In the majority, the disaster victims were satisfied with the support received from aid agencies and volunteers, and they also point out the great importance of support marked by understanding and generosity. However, the administrative and bureaucratic aspects should, according to them, be simplified. For example, the time the disaster victims are allowed for making authorized purchases should be extended. They also suggested an extension of the financial support and psychological assistance. Although some flood

disaster victims recognized the Crown's limits in its financial contribution, others would have liked more aid and are indignant about all the administrative requirements which were imposed on them (surveys, demolition permits, building permits, taxes on the materials, etc.).

In spite of all that has just been said, will time manage to alleviate the sorrow? Nearly two years after the event, the nostalgia, the weariness and the disappointment weigh heavily. "We lost the taste for pleasure, our joie de vivre," one disaster victim said. "We don't have the courage nor the energy to start projects anymore, we have less enthusiasm," adds another. Moreover, the problems raised by the integration into a new environment are experienced daily: distance from the family, the distant attitude of the neighbourhood, the loss of a sense of security, the change in lifestyle (fewer outings and recreational activities), etc. Even worse is the overwhelming feeling of loneliness created by living in a still strange residence: "In the new house there isn't any poetry and heart anymore," said one disaster victim. That thought echoes the words by Saint-Exupéry written at the beginning of this text: "The essence of a home is not that it shelters you, nor even that it keeps you warm, but that has instilled in your heart the warmth which makes it so valuable."

BIBLIOGRAPHY

- ADAMS, P.R. and G.R. ADAMS. "Mount Saint Helen Ashfall: Evidence for a Disaster Stress Reaction." American Psychologist 39, (1984), pp. 252-260.
- AGUIRRE, B.E. "The Long Term Effects of Major Natural Disaster on Marriage and Divorce: an Ecological Study." *Victimology* vol. 5 (1980), pp. 298-307.
- AMERICAN PSYCHIATRIC ASSOCIATION. DSM-IV, *Diagnostic and Statistical Manual for Mental Disorders*, (French translation). Paris: Masson, 1996, 1056 p.
- APTEKAR, L. "The Psychology of Disaster Victims," in L. Aptekar, *Environmental Disasters in Global Perspectives*. New-York: G.K. Hall & Co., 1994, pp. 79-126.
- AUGER, C., M. MARTIN, S. LATOUR and M. TRUDEL. L'état de stress post-traumatique: l'après-déluge au Saguenay. Unité de Médecine de Famille de Chicoutimi. (March 1997), various pages.
- BARTON, A.H. Communities in Disaster: a Sociological Analysis of Collective Stress Situations. Doubleday & Co. Inc., New York: Anchor Books 1969, 345 p.
- BAUM, A, I. FLEMING, A. ISRAEL and M.K. O'KEEFE. Symptoms of Chronic Stress Following a Natural Disaster and Recovery of a Man-made Hazard, *Environment and Behavior* 24, 3, (May 1992), pp. 347-367.
- BECKER, F. Housing Messages. Pennsylvania: Dowden, Hutchison and Ross, 1977.
- Belter, R.W. and M.P. Shannon. "Impact of Natural Disasters on Children and Families, in C.F. Saylor." *Children and Disasters.* Charleston, South Carolina, 1993, pp. 85-103.
- BENIGHT, C.C. and M.L. HARPER. Buffalo Creek Fire and Flood Report, Quick Response Report, N° 96, Natural Hazards Center, 1997, 7 p.
- BENNET, G. "Bristol Floods 1968. Controlled Survey of Effects on Health of Local Community Disaster." British Medical Journal 3, 1970: pp. 454-458.
- Bolin, R. Long-term Family Recovery from Disaster. Colorado: Library of Congress, 1982, 281 p.
- Bolin, R. *Natural Disasters in Psychological Aspects of Disaster*, R. Gist and S. Lubin (eds.), 1985, pp. 61-85.
- BROMET, E. and M.A. Dew. "Review of Psychiatric Epidemiologic Research on Disasters." *Epidemiologic Reviews* 17, 1, 1995: pp. 113-119.
- BROMET, E.J. and L. DUNN. "Mental Health of Mothers Nine Months after the Three Mile Island Accident." Urban and Social Change Review 14, 1981: pp. 12-15.
- CANINO, G., M. BRAVO, M. RUBIO-STIPEC and M. WOOBURY. "The Impact of Disaster on Mental Health: Prospective and Retrospective Analyses." *International Journal of Mental Health* 19, 1, 1990: pp. 51-69.

- CAOUETTE, É. La relation au chez-soi des personnes âgées en résidences spécialisées et leur perception de l'image des centres d'accueil, dissertation presented to the Faculté des études supérieures de l'Université Laval, École d'architecture, Faculté d'architecture et d'aménagement, 1995.
- CHOMBART DE LOWE. Des hommes et des villes. Paris: Payot, 1965.
- CHURCH, J.S. "The Buffalo Creek Disaster: Extent and Range of Emotional and/or Behavioral Problems." *Omega Logan-Mingo Area Mental Health Inc.* 5, 1 (1974): pp. 61-63.
- CRABBS, M.A. and K.U. BLACK. "Job Change following a Natural Disaster." *The Vocational Guidance Quarterly* 32, 4 (1984): pp. 232-239.
- CRABBS, M.A. and E. HEFFRON. "Loss Associated with Natural Disaster." *The Personnel and Guidance Journal* 59, 6 (1981): pp. 378-382.
- DAVIDSON, J. et al. "A Diagnostic and Family Study of Posttraumatic Stress Disorder." *American Journal of Psychiatry* 142, 1, (January 1985): pp. 90-93.
- DRABEK, T.E. and J.S. STEPHENSON. "When Disaster Strikes." *Journal of Applied Social Psychology* 1, 2 (1971): pp. 187-203.
- DUNAL, C., M. GAVIRA, J. FLAHERTY and S. BIRZ. "Perceived Disruption and Psychological Distress among Flood Victims." *Journal of Operational Psychiatry* 16, 2 (1985): pp. 9-16.
- ERICKSON, P.E., T.E. DRABEK, W.H. KEY and J.L. CROWE. "Families in Disaster: Patterns of Recovery." Mass Emergencies, Elsevier Scientific Publishing Company 1 (1976): pp. 203-216.
- ESCOBAR, J.I., G.J. CANINO, M. RUBIO-STIPIEC and M. BRAVO. "Somatic Symptoms after a Natural Disaster: a Prospective Study." *American Journal of Psychiatry* 149, (1992): pp. 965-967.
- FAUPEL, C.E. and S.P. Styles. "Disaster Education, Household Preparedness, and Stress Responses following Hurricane Hugo." *Environment and Behavior* 25, 2 (1993): pp. 228-249.
- FREDERICK, C.J. "Current Thinking about Crisis on Psychological Intervention in United States Disasters." *Mass emergencies*, National Institute of Mental Health 2 (1977): pp. 43-50.
- FREEDY, J.R., M.E. SALADIN, D.G. KILPATRICK, H.S. RESNICK and B.E. SAUNDERS. "Understanding Acute Psychological Distress following Natural Disaster." *Journal of Traumatic Stress* 7, 2 (1994): pp. 257-273.
- FREEDY, J.R., D.L. SHAW, M.P. JARRELL and M.P. MASTERS. "Towards an Understanding of the Psychological Impact of Natural Disasters: an Application of the Conservation Resources Stress Model." *Journal of Traumatic Stress* 5, 3 (1992): pp. 441-454.
- FRIED, M. "Grieving for a Lost Home." in L.J. Duhl (ed.), *The Urban Condition: People and Policy in the Metropolis*. New York:, Basic Books, 1963, pp. 151-171.
- Fullilove, M.T. "Psychiatric Implications of Displacement: Contributions from the Psychology of Place." American Journal of Psychiatry 153, 12, (1996): pp. 1516-1523.
- GARRISON, C.Z., E.S. BRYANT, C.L. ADDY, P.G. SPURRIER, J.R. FREEDY and D.G. KILPATRICK. "Posttraumatic Stress Disorder in Adolescents after Hurricane Andrew." *Journal of American Academy of Child and Adolescent Psychiatry* 34, 9 (1995): pp. 1193-1201.

- GAZETTE OFFICIELLE DU QUÉBEC. Decrees 932-96, 935-96, 974-96, 1996.
- GLESER, G.C., B.L. Green and C. Winget. *Prolonged Psychosocial Effects of a Disaster: a Study of Buffalo Creek*, New York Academic Press, 1981.
- GOLEC, J.A. "A Contextual Approach to the Social Psychological Study of Disaster Recovery." *Journal of Mass Emergency and Disasters* (1983): pp. 255-276.
- GOLLANT, S. A Place to Grow Old: the Meaning of Environment in Old Age. New York: Columbia University Press, 1984, 421 p.
- GREEN, B.L. and J.D. LINDY. "Post-traumatic Stress Disorder in Victims of Disasters." *Psychiatric Clinics of North America* 17, 2, (June 1994): pp. 301-309.
- GREEN, B.L., M.C. GRACE, M.G. VARY et al. "Children of Disaster in the Second Decade: a 17-year Follow-up of Buffalo Creek Survivors." *Journal of the Academy of Child and Adolescent Psychiatry* 33, 1, (1994): pp. 71-79.
- GREEN, B.L., J.D. LINDY, M.C. GRACE and A.C. LEONARD. "Chronic Posttraumatic Stress Disorder and Diagnostic Comorbidity in a Disaster Sample." *The Journal of Nervous and Mental Disease* 180, 12 (1992): pp. 760-766.
- GRUNFELD. *Habitat and Habitation: a pilot Study*, Serie-uitgave, van de University van, Amsterdam, hit sociologisch instituut, 1970.
- HAAS, E., P.B. TRAINER, M.J. BOWDEN and R. BOLIN. "Reconstruction Issues in Perspectives", in E. Haas, R.W. Kates and M. Bowden, *Reconstruction following Disaster*. Cambridge: The MIT Press, 1977 pp. 26-69.
- HALL, S. and P.W. LANDRETH. "Assessing Long-term Consequences of Natural Disaster." *Mass Emergencies* 1, (1975), pp. 55-61.
- HOUSTON, B.K. "Stress and Coping", in C.R. Snyder and C.E. Ford (eds.), *Coping with Negative Life Events: Clinical and Social Psychological Perspectives*, New York: 1987, pp. 373-399.
- HOVANITZ, C.A. "Physical Health Risks Associated with Aftermath of Disaster: Basic Paths of Influence and their Implications for Preventive Intervention." *Journal of Social Behavior and Personality* 8, (1993), pp. 213-254.
- HOWARD, M.J. et al. "Infectious Disease Emergencies in Disasters." *Emergency Medicine Clinics of North America* 14, 2 (1996): pp. 415-418.
- Howell, S. "Home: a Source of Meaning in Elder's Lives," in Generations Summer (1985), pp. 58-60.
- JANERICH, D.T., A.D. STARK, P. GREENWALL, W.S. BURNETT, H.T. JACOBSON and J. McCusher. "Increased Leukemia, Lymphoma and Spontaneous Abortion in Western New York following a Flood Disaster." *Public Health Reports* 96 (1981): pp. 350-356.
- KANIASTY, K.Z. and F.H. NORRIS. "A Test of the Social Support Deterioration Model in the Context of Natural Disaster." *Journal of Personality and Social Psychology* 64, 3 (1993): pp. 395-408.
- KENT, D.D. and R.A. Francis. "Psychophysiological Indicators of PTSD following Hurricane Iniki: the Multi-sensory Interview." Quick Response Report 77, Natural Hazards Center 1995, 7 p.

- KINGSTON, W. and R. ROSSER. "Disaster: Effects on Mental and Physical State." *Journal of Psychosomatic Research* 18, (1974): pp. 437-456.
- KOOPMAN, C., C. CLASSEN and D. SPIEGEL. "Predictors of Post-traumatic Stress Symptoms among Survivors of the Oakland/Berkely California Firestorm." *American Journal of Psychiatry* 151 (1994), pp. 888-894.
- KRUG, E. et al. "Suicide after Natural Disaster." The New England Journal of Medicine 338, 6 (1998): pp. 373-378.
- Lagreca, A.M., E.M. Vernberg, W.K. Silverman and M.J. Prinstein. "Symptoms of Post-traumatic Stress in Children after Hurricane Andrew: a Prospective Study." *Journal of Consulting and Clinical Psychology* 64, 4, (1996): pp. 712-723.
- LAWRENCE, R.J. "What Makes a House a Home?" *Environment and Behavior* 19, 2, Sage publications Inc., (March 1987), pp. 154-168.
- LAZARUS, R. and J. COHEN. "Environmental Stress", in I. Altman & J. Wohlwill (eds.), *Human Behavior and Environment: Current Theory and Research*, New York Plenum, 1977, pp. 89-127.
- LECHAT, M.F. "Disasters and Public Health." *Bulletin of Public Health of World Organisation*, 59 (1979), pp. 11-17.
- LIFTON R.J. and E. OLSON. "The Human Meaning of Total Disaster, the Buffalo Creek Experience." Psychiatry 39 (1976): pp. 1-18.
- LOGUE, J.N., H. HANSEN and F. STRUENING. "Some Indicators of the Long-term Health Effects of a Natural Disaster." *Public Health Report* 96, (1981) pp. 67-79.
- LOGUE, J.N., M. MELICK and E.L. STRUENING. "A Study of Health and Mental Health Status following a Major Natural Disaster." Research in Community and Mental Health 2 (1981): pp. 217-274.
- LONIGAN, C.J. et al. Children Exposed to Disaster: Risk Factors for the Development of Post-traumatic Symptomatology, 1994.
- LUTGENDORF, S.K., M.H. ANTONI, G. IRONSON, M.A. FLETCHER, F. PENEDO, A. BAUM, N. SCHNEIDERMAN and N. KLIMAS. "Physical Symptoms of Chronic Fatigue Syndrome are Exacerbated by the Stress of Hurricane Andrew." *Psychosomatic Medicine* 57, (1995), pp. 310-323.
- MADAKASIRA, S. and K.F. O'BRIEN. "Acute Post-traumatic Stress Disorder in Victims of a Natural Disaster." *Journal of Nervous and Mental Disease* 175 (1987): pp. 286-290.
- McDonnell, S., R.P. Troiano, N. Barker, E. Noji, G.W. Hlady and R. Hopkins. "Long-term Effects of Hurricane Andrew: Revisiting Mental Health Indicators." *Disasters: the Journal of Disaster Studies and Management* 19, 3 (1995): pp. 235-246.
- McFarlane, A.C. and P. Papay. "Multiple Diagnosis in Posttraumatic Stress Disorder in the Victims of a Natural Disaster." The Journal of Nervous and Mental Diseases 180, 8 (1992): pp. 498-504.
- McFarlane, A.C. and G. Degirolamo. "The Nature of Traumatic Stressors and the Epidemiology of Posttraumatic Reaction," in B.A. Van der Kolk, A.C. McFarlane and L. Weisaeth, *Traumatic Stress, the Effects of Overwhelming Experience on Mind, Body and Society*, New York: The Guilford Press, chapter 7, 1996, pp. 129-154.

- MELICK, M.E., J.N. LOGUE and C.J. FREDERICK. "Stress and Disaster," in *Handbook of Stress, Theoretical and Clinical Aspects* 1982, pp. 613-630.
- MELLMAN, T.A., D. DAVID, R. KULICK-BELL, J. HEBDING and B. NOLAN. "Sleep Disturbance and its Relationship to Psychiatric Morbidity after Hurricane Andrew." *American Journal of Psychiatry* 152, 11 (1995): pp. 1659-1663.
- MILNES, G. "Cyclone Tracy: 1. Some Consequences of the Evacuation of Adult Victims." *Australian Psychologist* 12 (1977), pp. 39-54.
- MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX. Informations générales sur divers types de sinistres naturels ou technologiques, Direction générale de la coordination régionale, Government of Quebec, 40, 1994.
- MURPHY, S.A. "Perceptions of Stress, Coping and Recovery One and Three Years after a Natural Disaster." *Issues in Mental Health Nursing* 8 (1986), pp. 67-77.
- NEWMAN, C.S. "Children of Disaster: Clinical Observations at Buffalo Creek." *American Journal of Psychiatry* 133 (1976), pp. 306-312.
- NOLEN-HOEKSEMA, S. and J. MORROW. "A Prospective Study of Depression and Posttraumatic Stress Symptoms after a Natural Disaster: the 1989 Loma Pietra Earthquake." *Journal of Personality and Social Psychology* 61, 1, (1991): pp. 115-121.
- NORRIS, F.H. and G.A. UHI. "Chronic Stress as a Mediator of Acute Stress: the Case of Hurricane Hugo." Journal of Applied Social Psychology 23, 16 (1993): pp. 1263-1284.
- NORTH, C.S., E.M. SMITH, R.E. McCool and P.E. LIGHTCAP. "Acute Post-disaster Coping Adjustment." Journal of Traumatic Stress 2, 3 (1989): pp. 353-360.
- O'MALLEY, C.O. "Resistance-compliance Behavior in Response to Natural Disaster." *Dissertation Abstract International* 39 (1978): p. 2574-B.
- OLLENDICK, G. and M. HOFFMAN. "Assessment of Psychological Reactions in Disaster Victims." *Journal of Community Psychology* 10 (1982), pp. 157-167.
- OLSON, L. "After the Flood: the Dripping Faucet Syndrome." *Iowa Medicine: Journal of the Iowa Medical Association* 83, 9 (1993): pp. 324-328.
- PENICK, E., B.J. POWELL and W.A. SIECK. "Mental Health Problems and Natural Disaster: Tornado Victims." *Journal of Community Psychology* 4 (1976), pp. 64-68.
- PHIFER, J.F. and Norris. "Psychological Symptoms in Older Adults following Natural Disasters: Nature, Timing, Duration and Course." *Journal of Gerontology* 44, 6 (1989): pp. 207-217.
- Pickens, J., T. Field, M. Prodromidis, M. Pelaez-Nogueras and Z. Hossain. "Posttraumatic Stress, Depression and Social Support among College Students after Hurricane Andrew." *Journal of College Student Development* 36, 2, (1995): pp. 152-161.
- POWELL, B.J. and E.C. PENICK. "Psychological Distress following a Natural Disaster: A One-year Follow-up of 98 Flood Victims." Journal of Community Psychology 11, 3 (1983): pp. 269-276.
- Powell, J.W. and J. Rayner. *Progress Notes: Disaster Investigation July 1, 1951, June 30, 1952,* Englewood, Maryland: Army Chemical Center, Chemical Corps Medical Laboratories, 1952.

- PRICE, J. "Some Age-related Effects of the 1974 Brisbane Floods." *Australian and New Zealand Journal of Psychiatry* 12, (1978): pp. 55-58.
- EMERGENCY PREPAREDNESS CANADA. List of Potential Emergencies for Developing Federal Contingency Plans, 1997.
- QUARANTELLI, E.L. "What is Disaster? The Need for Clarification in Definition and Conceptualization in Research", in B.J. Sowder, *Disasters and Mental Health: Selected Contemporary Perspectives*, NIMH, Center for Mental Health Studies of Emergencies, 1985, pp. 41-65.
- RANGELL, L. "Discussion of the Buffalo Creek Disaster: The Course of Psychic Trauma." *American Journal of Psychiatry* 133 (1976), pp. 313-316.
- RAPHAEL, B. "Crisis and Loss: Counselling following a Disaster." *Mental Health in Australia,* (1975), pp.118-122.
- RAPHAEL, B. When Disaster Strikes: How Individuals and Communities Cope with Catastrophe. New York: Basic Books, Inc. 1986, 335 p.
- RAPOPORT. The Meaning of the Built Environment: On Non Verbal Communication Approach, Beverly Hills: Sage Publication, 1982.
- ROBINS, L.N., R.L. FISCHBACH, E.M. SMITH, L.B. COTTLER, S.D. SOLOMON and E. GOLDRING. "Impact of Disaster on Previously Assessed Mental Health," in J.J. Shore, *Disaster Stress Studies: New Methods and Findings*, Washington, DC, American Psychiatric Press, 1986, pp. 22-48.
- ROSSI, P.R., J.D. WRIGHT, E. WEBER-BURDIN and J. PEREIRA. *Victims of the Environment, Loss from Natural Hazards in the United States, 1970-1980.* New York: Plenum Press, 1983.
- Rowles, G.D. "Place and Personal Identity in Old Age: Observations from Appalachia." *Journal of Environmental Psychology* 3 (1983): pp. 219-313.
- RUBINSTEIN, R.L. "The Home Environments of Older People: a Description of the Psychological Processes Linking Person to Place!" *Journal of Gerontology: Social Science*, 44, 2 (1989): pp. S45-S53.
- SHANNON, M.P., C.J. LONIGAN, A.J. FINCH and C.M. TAYLOR. "Children Exposed to Disaster: 1. Epidemiology of Posttraumatic Symptoms and Symptoms Profiles." *Journal of American Academy of Child and Adolescent Psychiatry* 33, (1994): pp. 80-93.
- SHAW, J.A., B. APPLEGATE and C. Schorr. "Twenty-one Month Follow-up Study of School-age Children Exposed to Hurricane Andrew." *Journal of the American Academy of Child and Adolescent Psychiatry* 35, 3, (1996): pp. 359-364.
- SIMONOVIC, M. Report on the Red River Basin Floods, International Joint Commission Red River Basin Task Force, 1998.
- SJOBERG, G. "Disasters and Social Change", in G.W. Baker and D.W. Chapman (eds.), *Man and Society in Disaster*. New York: Basic Book, Inc., 1962.
- SMITH, B.W. "Coping as a Predictor of Outcomes following the 1993 Midwest Flood." *Journal of Social Behavior and Personality* 11, 2 (1996): pp. 225-239.

- SMITH, E.M., L.N. ROBINS, T.R. PRYZBECK, E. GOLDRING and S.D. SOLOMON. "Psychological Consequences of a Disaster," in J. Shore (ed.), *Disaster Stress Studies: New Methods and Findings*, Washington DC, American Psychiatric Press, 1986, pp. 49-76.
- SOLOMON, S.D., E.M. SMITH, L.N. ROBINS and R.L. FISCHBACK. "Social Involvement as a Mediator of Disaster-induced Stress." *Journal of Applied Social Psychology* 17 (1987), pp. 1092-1112.
- SOWDER, B.J. "Some Mental Health Impacts of 'Loss' and Injury: a Look Outside the Disaster Field", in B.J. Sowder, *Disasters and Mental Health: Selected Contemporary Perspectives,* NIMH, Center for Mental Health Studies of Emergencies, 1985, pp. 74-104.
- STEINFIELD, E. "The Pace of Old Age: The Meaning of Housing for Old People," in J.S. Duncan, *Housing and Identity, Cross-cultural Perspectives,* New York: Holmes and Meier Plusher, 1982, pp. 198-245.
- STEINGLASS, D. and E. GERRITY. "Natural Disasters and Post-traumatic Stress Disorder: Short-term versus Long-term Recovery in Two Disaster-affected Communities." *Journal of Applied Social Psychology* 20 (1990), pp. 1746-1765.
- TITCHENER J.L. and E.T. KAPP. "Family and Character Change at Buffalo Creek." *American Journal of Psychiatry* 133 (1976), pp. 295-299.
- TOBIN G.A. and J.C. OLLENBURGER. "Predicting Levels of Postdisaster Stress in Adults following the 1993 Floods in the Upper West." *Environment and Behavior* 28, 3 (1996): pp. 340-357.
- TRAINER, P. and R. Bolin. "Persistent Effects of Disasters on Daily Activities: A Cross-cultural Comparison." *Mass Emergencies* (1976), pp. 279-290.
- TRAINER, P.B., R. Bolin and R. Amos. "Reestablishing Homes and Jobs: Families," in E. Haas, R.W. Kates and M. Bowden, *Reconstruction following Disaster,* Cambridge: The MIT Press, 1977, pp. 147-206.
- TURNER, B.A. "The Development of Disasters: a Sequence Model for the Analysis of the Origin of Disasters." *The Sociological Review* 24, 4, (1976): pp. 753-774.
- TYHURST, J.S. "Individual Reactions to Community Disaster." *American Journal of Psychiatry* 107, (1951): pp. 764-769.
- VAN DER KOLK, B., A. McFarlane and L. Weisaeth. *Traumatic Stress: the Effects of Overwhelming Experience on Mind. Body and Society*, Guilford Press, 1996.
- VERNBERG, E.M., W.K. SILVERMAN, A.M. LAGRECA and M.J. PRINSTEIN. "Prediction of Posttraumatic Stress Symptoms in Children after Hurricane Andrew." *Journal of Abnormal Psychology* 105, 2 (1996): pp. 237-248.
- WAYNE, C.R., Crisis Intervention Services following Natural Disaster: the Pennsylvania Recovery Project, pp. 29-36, photocopied text.
- WILNER, D.M., R.P. WALKLEY, T.C. PINKERTON and M. TAYBACK. *The Housing Environment and Family Life: A Longitudinal Study of the Effects of Housing on Morbidity and Mental Health.* Baltimore: The Johns Hopkins University Press, 1962.

- WILSON, C.A. "The Earthquake Displacement Program: A Study of its Effects upon the Academic Achievement of Students in Selected Junior High Schools." *Dissertation Abstract International*, (1975), p. 1237-A.
- YATES, S. "Lay Attribution about Distress after a Natural Disaster." *Personality and Social Psychology Bulletin* 18, 2 (1992): pp. 217-222.

APPENDIX 1

Interview Grid

Interview Flow Chart Conception of Home

Where were you during the flood?
What were your main thoughts and concerns during that event? (fears, be
What were your main thoughts and concerns during that event? (fears, be feelings, hopes, wishes)

	ren, social su	pporty					
_		-			 		
		_					
		_					
	·						
							
		-					
						· ···· ··	
							
							
-							
		· 					
	 						
				· ···			
							
		- 					
							
							
		·			<u> </u>		
							
							
							

	a) What are the damages or losses that you incurred? (material losses house, land)
_	
b)	
b)	
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?
b)	What do you estimate the value of those losses to be?

· · · · · · · · · · · · · · · · · · ·				 	
				 	
				 -	
·				 	
6. Why die location 1	d you choo	se those lo	cations?		
6. Why die location 1	d you choo	se those lo	cations?		
6. Why die location 1					
location 1					
location 1					
6. Why die location 1					
location 1					
location 1					
location 1					
location 1					
location 1					
location 1					
location 1 location 2					
location 1					

7. For each location mentioned, what did you appreciate, what did you find difficult?

	Elements Appreciated	Difficult Elements
Location 1:		
Location 2:		
Logwidin E.		
	_	
•		
Location 3:		
Location 5.		
	,	

				
			·	
	·			
				
				
		_		
	- -			
			_	
		<u> </u>		
			 -	
				_
				
				
<u></u>				
		 		
				

ong have you t	een staying	at that address?		
				
				
				
				
oan has lansed l	netween the	flood and your	reintegration ir	vour
oan has lapsed lence?	petween the	flood and your	reintegration ir	ı your
	petween the	flood and your	reintegration ir	ı your
	petween the	flood and your	reintegration ir	ı your
	petween the	flood and your	reintegration ir	your
	petween the	flood and your	reintegration ir	a your
	petween the	flood and your	reintegration ir	a your
	petween the	flood and your	reintegration ir	a your

.

place, centre of		, rorago, maroc	tor or certain;	social success, 1
		······	·	
				
			· · · · · · · · · · · · · · · · · · ·	
			· · · · · · · · · · · · · · · · ·	
	 .			
		· · · · · · · · · · · · · · · · · · ·		
	·			<u> </u>
				
			. <u></u>	
	· · · · · · · · · · · · · · · · · · ·	_ 		
	······			
				
				
			<u> </u>	

represent i	iow?			epresent now?				
		····						
				<u> </u>				
					·			
	-							
								
								
								
	· <u></u>							
	· · · · · · · · · · · · · · · · · · ·							
-								
								
	~							
	 -							
								
								
								
								
								
								
		<u></u>						
					- -			
					· · · · · · · · · · · · · · · · · · ·			
								
			 	 				

<u> </u>				
				
				
	 			
			···	
				
 _		-		
				_
	<u> </u>			
		<u> </u>		
 				
				
<u> </u>				
				
				
				_
	<u>-</u> -			
				
				
		_		
				
				

	lings and images the same for your current p					
						
						
						
		·				
						
						
	·					
<u>-</u>						
						
						

16. What are your feelings towards your former and current residence?

Before the Flood	After the Flood
:	
	Before the Flood

	Before the Flood	After the Flood
The Land		
Elements appreciated		
Elements less appreciated/disadvantages		

	Before the Flood	After the Flood
The Neighbourhood		
Elements appreciated		
Elements less appreciated/disadvantages		

,

	· · · · · · · · · · · · · · · · · · ·			
				
		· · - · ·		
· · · · · · · · · · · · · · · · · · ·				
	·		 -	
			.,	
			<u></u>	
				<u></u>
		-		
			_ ,	
				
		 		
	-			·-

QUESTIONS 18 TO 26 ARE INTENDED FOR RESPONDENTS WHO HAVE MOVED INTO ANOTHER NEIGHBOURHOOD OR TO ANOTHER CITY. WOULD THOSE WHO HAVE REMAINED IN THE SAME NEIGHBOURHOOD PLEASE GO TO QUESTION 27.

18.	Was your decision to change neighbourhoods or cities made by yourself or by public authorities?
	☐ By self (go to question 19) ☐ By public authorities (go to question 20)
9.	What motivated your decision to change neighbourhoods or cities?
-	

		- · 			
·					
		-			
				· · · ·	
				•••	
					
					
			 		
					
		 			
				<u>-</u>	
					
					-
			- 		

		means tal		<i>O</i>	.	 		- 001101	. 0014
						 			
			····			 			
	•								
		·				 			
						 		-	
				-		 			
						 -			
			-			 			
						 			
						 	<u>-</u>		
						 		 -	
-			- -			 			
					_	 			
		-				 			

What element (distance from difficulties, ac	n friends and far daptation to a ne	nily, feeling o	f safety that	disappeared,	finan
			-		
					
			-		
					 -
					
 					
					
	<u></u>			 	
			· · · · · · · · · · · · · · · · · · ·		
					
					
				-	
					
		· · · · · · · · · · · · · · · · · · ·			
					
	<u> </u>				
					

new neighbourh		•		
				
		**		
			· · · · · · · · · · · · · · · · · · ·	
	-			
		-		 _
			-	
		-		

he flood?					
					
					
			_		
	·				
					 _
					 _
					
· · · · · · · · · · · · · · · · · · ·					
•					
				~	
- 					
				- <u>-</u>	
					
		-			

					
				<u> </u>	
	_				
	 			<u></u> -	
•					
<u> </u>			· · · · · · · · · · · · · · · · · · ·		
	 `				
	 _				
<u> </u>	 				
		· · · · · · · · · · · · · · · · · · ·			
- <u>-</u>	 		<u>-</u>		
	 				

				t neighbourhoo	
<u></u>					
,					
		-			
		•			
					
					
· · · · · · · · · · · · · · · · · · ·			•		
4					
					
			 .		
			·		
		 	····		
	 				
			-		
					
·					

					
		·			
	·				
			•••		
					
					
			·· ••		
	·				
			_		
	•••				
	 -				
	· · · · · · · · · · · · · · · · · · ·				
				<u> </u>	
					—
				·	
					

			
			-
			···
			
			
	·		
			·····
	-		
	. <u></u>		
		-	
			
		<u> </u>	
			
			<u>.</u>

	`			
		- -		
·				
······································				
				
				
				
				
				
				
····				
				
				
		 -		
			· · · · · · · · · · · · · · · · · · ·	

volunteers who w	vant to herp t	usasiei vici	11112 (
					
					
					
					
					
					
 					
 _					
 					
	·				
			<u></u>		
	`				
			······································	-	
		· · · -			
					
					
				 	
·					
		<u></u>	_		
	<u></u>				
			<u> </u>		
		 -			

o establish suppo	or poneres or p	ograms for a	sustor violinis	·•
				
				
				
				
			·	
				
				
				
				
		·		
				
				
· · · · · · · · · · · · · · · · · · ·				
				
				
				
				
		-		

APPENDIX 2

Information Sheet

INFORMATION ON THE SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Name of male occupant:	Name of female occupant:
Age:	Age:
Profession:	Profession:
Education:	Education:
Annual Gross Income (1997):	Annual Gross Income (1997):
Current Address:	Current Address:
Residence located close to water: YES	Residence located close to water: YES
□ NO	
Address during flood:	Address during flood:
Residence located close to water:	Residence located close to water:
□ NO	to water. ☐ TES
Number of Children:	Number of Children:
Marital Status: ☐ married, common law ☐ divorced, separated ☐ single	Marital Status: ☐ married, common law ☐ divorced, separated ☐ single

INFORMATION ON THE RESIDENCE OCCUPIED DURING THE FLOOD AND ON THE RESIDENCE CURRENTLY OCCUPIED

	HOUSE OCCUPIED DURING FLOOD	CURRENT HOUSE
Year of Construction Year of Purchase	19 19	19 19
Dimensions of Land Dimensions of House	feet xfeet feet xfeet	feet xfeetfeet xfeet
Number of Floors Number of Rooms		
Type of Exterior Finish:		·
Type of House: bungalow duplex semi-detached building (less than 3 floors) building (4 to 6 floors) building (7 floors or more) other, specify:		
Type of Heating: electricity natural gas hot water mixed, specify: other, specify:		
Type of Rooms: (specify the number) kitchen (no.) living room (no.) bedroom (no.) lounge (no.) bathroom (no.) others, specify		

	HOUSE OCCUPIED DURING FLOOD	CURRENT HOUSE
Basement: non-existent finished partially finished not finished		·
Assessed Value:	\$	\$
Market Value:	\$	\$
Mortgage Amount:	\$	\$
Balancing amount received for the house and land for goods and furniture	\$ \$	
Are you the: owner co-owner tenant		
Close to what services: convenience store pharmacy local community service centre church schools others, specify		