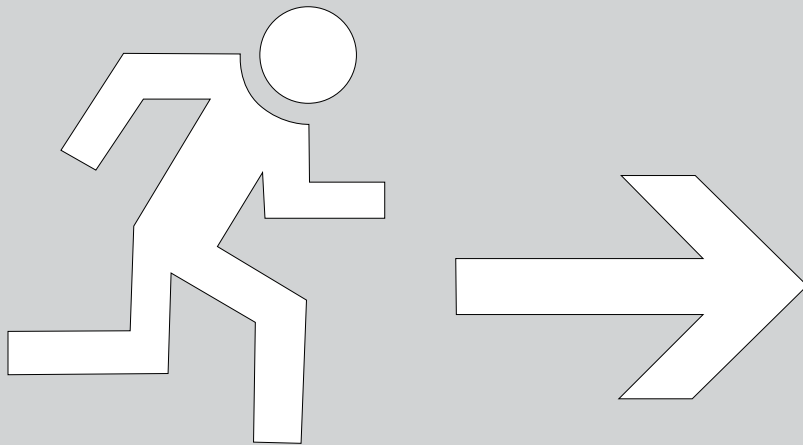


Fundamentals of Emergency Management: Preparedness



Norman Ferrier



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To my late mother, Barbara Ferrier, who always believed in me, and to my wife, Jennifer, without whose constant support and encouragement my career goals would never have been achieved.

CONTENTS

<i>Preface</i>	xv
<i>Introduction</i>	xix

PART I EMERGENCY MANAGEMENT AND COMMUNITIES

CHAPTER 1 The History of Emergency Management	3
Introduction	3
Purpose	4
The History of Community Safety	4
Early History	4
Permanent Settlements	5
War and Military Intervention	6
Government and Community Services	7
Modern Emergency Management	8
The First World War	8
The Second World War	9
The Cold War	10
Present Day	13
Conclusion	15
Key Terms	15
Learning Check	15
Case Studies	19
To Learn More	20
Notes	20
CHAPTER 2 The Role of Government	21
Introduction	21
Purpose	22
Government and Community Protection	22
The Role of Government in Emergency Management	23
Government Organization: The Three-Tiered Model	23
Legislation	24
Funding	26
The Roles and Responsibilities of the Three Tiers of Government	26
Conclusion	30

Key Terms	31
Learning Check	31
Case Studies	35
To Learn More	36
Notes	36
CHAPTER 3 The Evolution of Communities	37
Introduction	37
Purpose	38
The Creation of Communities	38
Nomadic Groups	38
Permanent Settlements	39
The Development of Government and Trade	40
Modern Communities	41
Issues and Risks	41
Conclusion	43
Key Terms	44
Learning Check	44
Case Studies	48
To Learn More	49
Notes	49
CHAPTER 4 Understanding Community Composition	51
Introduction	52
Purpose	52
Community Composition	52
Key Demographic Variables in Emergency Management	54
Age	54
Socio-economic Status	55
Disability	55
Length of Residency	57
Ethnicity	57
Tools of the Trade	58
Census Data	59
Demographic Projections	59
Using Demographic Data	60
Conclusion	61
Key Terms	61
Learning Check	62
Case Studies	66
To Learn More	66
Notes	67

CHAPTER 5 Land-Use Issues 69

Introduction 69

Purpose 70

The History of Community Planning 70

 Community Configuration 71

 Transportation Considerations 72

Contemporary Communities 73

 Risk Tolerance 74

 Modern Planning Issues 75

The Role of Emergency Management 75

Conclusion 77

Key Terms 78

Learning Check 78

Case Studies 82

To Learn More 83

Notes 83

PART II HAZARD, RISK, AND VULNERABILITY

CHAPTER 6 Critical Infrastructure 87

Introduction 87

Purpose 88

What Is Critical Infrastructure? 88

Determining Criticality 89

 What Role Does This Element Play in the Life of the Community? 90

 Does the Element Provide an Essential Service or Access to an
 Essential Resource? 90

 How Many Elements Providing Similar Services or Resources are
 Available in the Community? 91

 Are Other Options for Providing Services or Resources Available
 Nearby? 91

 Are These Elements Directly or Indirectly Dependent on Other
 Community Elements for Their Operation? 91

Determining Vulnerability 91

 Where Are These Elements Located in the Community? Is Proximity
 to Potential Sources of Hazard Events an Issue? 92

 If the Element in Question Were Unavailable, What Impact Would
 There Be on the Community? How Soon? 92

 How Long Could the Community Continue to Function Normally
 Without the Presence of the Element? 92

Critical Infrastructure Elements 93

 Elements of the Supply Chain 93

Economic Elements	94
Elements That Affect Quality of Life	94
Emergency Response Elements	95
Conclusion	96
Key Terms	96
Learning Check	96
Case Studies	100
To Learn More	101
Notes	101
CHAPTER 7 Basic Risk Theory	103
Introduction	103
Purpose	104
Understanding the Basics	104
Hazard	104
Risk	104
Frequency	105
Magnitude	105
Vulnerability	106
Resiliency	106
History of Emergency Planning	106
Types of Risk Modelling	108
Contemporary Risk Modelling	114
Conclusion	115
Key Terms	115
Learning Check	116
Case Studies	120
To Learn More	120
Notes	121
CHAPTER 8 The Risk Assessment Process	123
Introduction	123
Purpose	124
Categories of Hazards	124
Events That Generate a Surge in Demand for Services	124
Events That Interrupt Supply Chains	126
Events That Disrupt Normal Business Operations	126
HIRA Models	127
The HIRA Process	128
Getting to Know the Community	128
Identifying Hazards	130
Creating Hazard Profiles	131
Ranking Frequency	132

Ranking Magnitude	133
Scoring Risk	134
More Comprehensive Risk Modelling	136
Social Consequence Model	136
Organizational Risk Model	138
Graphic Modelling	140
Managing Risk	141
Risk Avoidance	141
Risk Mitigation	141
Risk Transference	142
Risk Acceptance	142
Conclusion	143
Key Terms	143
Learning Check	143
Case Studies	147
To Learn More	148
Notes	149
CHAPTER 9 Assessing Vulnerability	151
Introduction	151
Purpose	152
Determining Vulnerability	152
Critical Infrastructure	152
How Does Vulnerability Differ Among People?	152
Root Cause Analysis	154
The Process of Root Cause Analysis	156
The Rules of Root Cause Analysis	159
Root Cause Analysis Applications in Emergency Management	161
Conclusion	162
Key Terms	164
Learning Check	164
Case Studies	168
To Learn More	168
Notes	169
Chapter 10 Fostering Resiliency	171
Introduction	171
Purpose	172
Vulnerability, Resiliency, and Human Behaviour	172
Resiliency Strategies	174
The Homeostasis Principle	174
The Omnivory Principle	175
The High Flux Principle	176

The Flatness Principle	177
The Buffering Principle	178
The Redundancy Principle	179
Community Resiliency Programs	181
Identifying Opportunities for Resiliency	181
Setting Priorities	185
Obtaining Support and Approval	186
Conclusion	186
Key Terms	187
Learning Check	187
Case Studies	191
To Learn More	192
Notes	193

PART III PREPAREDNESS

CHAPTER 11 The Emergency Planning Process	197
Introduction	197
Purpose	198
Steps in the Emergency Planning Process	198
Understanding the Community and Its Resources	198
Hazard Identification and Risk Assessment	199
Collecting Data on Community Resources	199
Setting Objectives	200
Soliciting Input	201
Writing the Plan	203
Review and Approval	204
A Dynamic Document	204
Conclusion	206
Key Terms	207
Learning Check	208
Case Studies	212
To Learn More	213
Notes	213
CHAPTER 12 The Components of an Emergency Plan	215
Introduction	215
Purpose	216
Emergency Plan Components	217
Organization and Accessibility	217
The Body of the Plan	220
Supporting Documents	227

Conclusion	229
Key Terms	230
Learning Check	230
Case Studies	234
To Learn More	234
Notes	235
CHAPTER 13 Emergency Operations Centres	237
Introduction	237
Purpose	238
The Role of the EOC	238
The Occupants of the EOC	240
Municipal Control Group	240
Municipal Support Group	241
EOC Support Staff	241
The Business Cycle	242
EOC Design	243
Environment	243
Furnishings	244
Access Control and Security of Information	244
Lighting, Ventilation, and Noise Reduction	245
The Challenges of Improvised Space	246
Support Facilities	247
Conclusion	248
Key Terms	249
Learning Check	249
Case Studies	253
To Learn More	254
Notes	254
CHAPTER 14 Emergency Operations Centre Technologies	255
Introduction	255
Purpose	256
General Considerations	257
Telecommunications Technologies	259
Telephone Systems	259
Emergency Service Radio	264
Amateur Radio	266
Broadcasting	267
Television	267
Local Radio	268
Local Cable Television	268
EOC Technologies	269

Information-Management Technologies	270
Hardware	271
Software	273
Web-Based Applications	274
Low-Tech Alternatives	276
Maps	276
Written Material	277
Bulletin Boards and Whiteboards	277
Evaluating Technologies	278
Strengths	279
Weaknesses	279
Opportunities	279
Threats	279
Conclusion	279
Key Terms	280
Learning Check	280
Case Studies	284
To Learn More	285
Notes	286

PART IV EMERGENCY MANAGEMENT EDUCATION AND FUNDING

CHAPTER 15 Emergency Exercise Planning	289
Introduction	289
Purpose	290
The Process of Planning Emergency Exercises	290
Educational Theory	290
Establishing Learning Objectives	294
Selecting a Scenario	295
Creating an Exercise	296
Delivery of Information to Participants	299
Exercise Logistics	300
Chronology, Timelines, and Performance Measurement	304
Creating a Learning Environment	305
Measuring Effectiveness	308
Debriefing Participants	309
Applying the Data	310
Conclusion	311
Key Terms	312
Learning Check	313
Case Studies	317

To Learn More	317
Notes	318
CHAPTER 16 Types of Emergency Exercises	319
Introduction	319
Purpose	320
Major Types of Emergency Exercises	320
Case Study Exercises	321
Tabletop Exercises	324
Tactical Exercise Without Troops (TEWOT)	329
Functional Exercises	331
Full-Scale Exercises	333
The Future: Computer-Simulated Emergency Exercises	337
Conclusion	339
Key Terms	339
Learning Check	339
Case Studies	343
To Learn More	343
Notes	344
CHAPTER 17 Public Education	345
Introduction	345
Purpose	346
“Getting the Message Out”	346
Principles of Adult Education	347
Print Materials and the Accessibility of Information	348
Websites	350
Public Displays, Public-Speaking Engagements, and Public Events	351
Public–Private Partnerships	354
Local Volunteers	355
Conclusion	357
Key Terms	357
Learning Check	358
Case Studies	362
To Learn More	362
Notes	363
CHAPTER 18 Educating Key Decision-Makers	365
Introduction	366
Purpose	366
Influencing Key Decision-Makers	366
Government and Politics	366
Laws, Regulations, and Standards	370

Educating Key Decision-Makers	374
Orientation to Emergency Management Laws, Regulations, and Standards	375
Putting Information into Practice	376
Developing Influence	377
Position Influence	377
Interpersonal Influence	378
Domineering Influence	378
Positioning Emergency Managers	379
Approaches to Decision Making	379
Understanding Self-Interest	379
Expertise and Education	380
Navigating Corporate Structure	381
Conclusion	382
Key Terms	383
Learning Check	383
Case Studies	387
To Learn More	388
Notes	388
CHAPTER 19 Emergency Management Funding	389
Introduction	389
Purpose	390
Funding at the Municipal Level	391
The Budget Process	392
Alternative Sources of Funding	396
Grants	397
Service Organizations	400
Public–Private Partnerships	403
Conclusion	406
Key Terms	406
Learning Check	407
Case Studies	411
To Learn More	412
Notes	412
CONCLUSION	413
GLOSSARY	415
ANSWER KEY FOR LEARNING CHECK	423
INDEX	429

Preface

Fundamentals of Emergency Management: Preparedness was created for use in college- and university-level emergency management programs. It was also created to provide a practical reference for emergency management practitioners, whether they are new to the field and have not received the benefit of formal training or whether they are experienced. Indeed, any reader with an interest in disasters or emergency management may find this book useful.

This book has a practical orientation because most of its readers are adult learners who typically will learn best by doing. As a result, in addition to presenting theoretical knowledge, each chapter provides opportunities for readers to apply what they have learned in practical ways through case studies and assignments.

This book is organized into four parts: “Emergency Management and Communities,” “Hazard, Risk, and Vulnerability,” “Preparedness,” and “Emergency Management Education and Funding.” Each part provides a comprehensive overview of a different core element of the emergency management process.

Each chapter includes the following sections:

- ▶ **Learning Objectives:** This section describes in general terms the information that readers are expected to understand upon completion of the chapter and its associated assignments. It is intended to provide readers with a guide to getting the most out of the content.
- ▶ **Key Messages:** This section presents a clear and concise description of the most important concepts contained in the chapter. It does not eliminate the need to read the chapter. The main body of the chapter provides the detailed explanations, discussion, and examples necessary for a complete understanding of the concepts being studied.
- ▶ **Introduction:** As its title suggests, this section introduces the concepts contained in the chapter and outlines the areas to be covered. It provides readers with a roadmap with which to direct their reading.
- ▶ **Purpose:** This section describes how the information obtained through the reading of the chapter is used, why this information is important, and what makes it relevant to the practice of emergency management.

- ▶ **Conclusion:** This section summarizes the key information contained in the chapter, and also draws certain important conclusions regarding that information's application to the practice of emergency management.
- ▶ **Key Terms:** Each time a new term of particular importance appears in the text, the term is highlighted. Readers will find definitions for these key terms in the glossary. These terms are in common usage in the field of emergency management and, to some extent, represent the jargon of the field. As such, they are important terms for readers to know, understand, and be able to use comfortably in their daily practice.
- ▶ **Learning Check:** Close to the end of each chapter there is a series of 20 multiple-choice questions related to the chapter content. These questions allow readers to self-test their level of knowledge after reading the chapter. Readers should take the time to consider each question carefully, and, in all cases, should select the *best* answer. The answer to each question appears in the answer key at the end of the book. Readers should be able to answer at least 16 questions out of 20 correctly (80 percent). If they cannot, it is recommended that they re-read the chapter. This section provides readers with a valuable review of key information, and may also be of use as a study tool when preparing for state/provincial or International Association of Emergency Managers (IAEM) certification examinations.
- ▶ **Case Studies:** Each chapter contains two case studies. Each case study places readers in the position of a working emergency manager, and provides them with initial exposure to the practical application of the chapter material in planning and problem solving.
- ▶ **To Learn More:** This section provides readers with relatively simple assignments that they can undertake to better understand the concepts contained in the chapter. In most cases, these assignments will not take more than an hour or two of a reader's time. Most of them are to be undertaken by readers at a local level to provide them with a broader exposure to emergency management as it is practised in their own community, and to make the information obtained locally relevant.
- ▶ **Notes:** This section provides readers with additional resources in the form of readings or websites with relevant information. Notes present resources that refer to a specific concept discussed, provide a supporting example, or discuss a concept in greater detail. No reader can learn all that there is to know about any subject by reading a single book, and these notes are

intended to provide readers with a broader spectrum of information. Taken collectively, the notes from all chapters may provide readers with a useful collection of research sources for additional work assignments given in class.

The end of the book includes the following sections:

- ▶ **Glossary:** The glossary is intended to more fully and concisely explain key terms that appear in the main body of the book. These terms include jargon that is common to the practice of emergency management, and that the reader must know, understand, and be able to use appropriately.
- ▶ **Answer Key:** This section provides the correct answers for each chapter's "Learning Check" questions.

Acknowledgments

No book is ever the result of a single person's thoughts. A long list of people, both colleagues and mentors, have made some contribution to the content of this book, whether they realize it or not. While these people are too numerous to mention individually, I would like to express my thanks to each of them—they know who they are. I would also like to thank the staff and administration of the Toronto Emergency Medical Service, who have constantly supported and encouraged my career aspirations, providing me with perspectives, opportunities, and experiences that helped make this book what it is. Finally, I would like to thank my editor, Tammy Scherer, whose thoughtful insights and sense of humour kept me focused and helped take this book from an idea into reality.

Introduction

All communities are challenged from time to time by unforeseeable disasters that are a result of natural events, technological accidents, and, in some unfortunate cases, deliberately planned events. The ability to respond to such events quickly and effectively is a central part of community safety, and just as important in its own right as the emergency services (such as Emergency Medical Services [EMS], fire protection, and policing) that we normally take for granted. The ability to respond well can mean the difference between safety and misery, and may even affect the community's ability to survive the event. Despite the importance of this priority, communities large and small are routinely challenged to find both the physical and monetary resources as well as the expertise to prepare for such events effectively.

Emergency management and preparedness are the mandate of an emergency manager. Increasingly, this critical role is becoming formalized and evolving into a profession in its own right, complete with educational requirements, standards, and a required knowledge base.

It is clearly impossible and impractical to attempt to put everything that one might need to know about emergency management into a single book. With this in mind, *Fundamentals of Emergency Management: Preparedness* is intended to be the first in a series of three books on the subject of emergency management. Subsequent books in the series will focus on community response to emergency events and on the community's recovery from emergency events. The process of mitigation will be a recurring theme in all three books, in much the same way that it recurs in real-life emergency management.

This book is divided into four parts, with each addressing a different aspect of preparedness. Part I deals with the history and evolution of emergency management as a process, its role within governments and organizations, the evolution and composition of communities, and land-use issues. Part II explores and explains the nature and evolution of hazard, risk, vulnerability, and resiliency, how they affect communities and organizations, and how they may be evaluated in a meaningful way when creating a preparedness process for the community or organization. Part III addresses the processes, procedures, and issues involved in writing a meaningful and effective emergency plan for a community or organization. Finally, part IV explores preparedness activities, including the testing of emergency plans through

exercises, the role of public education, the education of key decision-makers, and the funding of preparedness projects through municipal funding and alternative sources.

The practice of emergency management is rarely identical in any two communities. At a local level the process will be affected by the local reality and priorities, the availability of resources, and legislated mandates. This book presents the general principles behind the practice of emergency management, and draws on examples from a variety of countries and jurisdictions, each with its own priorities, realities, and good ideas. It also presents readers with assignments that will not only help them better understand how emergency management is practised in their local context, but also give them the opportunity to apply the general principles of emergency management in their own locale.

Modern emergency managers are not specialists, but sophisticated generalists. Knowledge is required from not only the field itself but also a broad range of academic disciplines. The formal education of emergency managers is an essential step in the process of preparedness, and will come from a variety of sources, and a variety of mentors, all with their own experiences. No single source will ever prepare emergency managers for their role. Educated emergency managers create communities that are truly prepared for emergencies, and prepared communities are usually more resilient to the effects of any disaster that might befall them. This book is intended to contribute to that process of education.