

# Contents

<i>Dedication</i> . . . . .	iv
<i>Foreword</i> . . . . .	v
<i>Prologue: Two Rescues</i> . . . . .	vii
<i>Introduction</i> . . . . .	xi
<b>I. River Sense . . . . .</b>	<b>1</b>
Characteristics of Whitewater Rivers . . . . .	2
Hazards . . . . .	5
Rating the Rapids . . . . .	15
Preparation . . . . .	18
Scouting . . . . .	21
Leadership . . . . .	22
The “What If” Factor . . . . .	23
<b>II. Equipment . . . . .</b>	<b>25</b>
Safety Equipment . . . . .	26
Clothing . . . . .	40
Boats and Rafts . . . . .	42
<b>III. Self-Rescue . . . . .</b>	<b>52</b>
The Eskimo Roll . . . . .	52
Swimming with Boats . . . . .	53
Swimming in Whitewater . . . . .	55
Strainers . . . . .	58
Entrapment . . . . .	59
Holes . . . . .	60
<b>IV. Rescue on the Run . . . . .</b>	<b>66</b>
The Big Boats—Rafts, Catarafts, and Dories . . . . .	68
The Little Boats—Kayaks, Canoes, and Inflatables . . . . .	76

<b>V. Basic Rope Rescue . . . . .</b>	<b>86</b>
The Throwing Rescue . . . . .	86
Throwing Techniques . . . . .	90
Tag Line Rescues . . . . .	99
<b>VI. Wading, Swimming, and Contact Rescues . . . . .</b>	<b>106</b>
Swimming Rescues . . . . .	106
The Initial Contact—Victim Psychology . . . . .	108
Wading Rescues . . . . .	109
Tethered Swimmer . . . . .	113
<b>VII. Tethered Boat Rescues and Telfer Lowers . . . . .</b>	<b>125</b>
Rigging the Rescue Craft . . . . .	137
<b>VIII. Entrapments and Extrications . . . . .</b>	<b>143</b>
Boat Pins and Entrapments . . . . .	144
Foot and Body Entrapments . . . . .	149
Stages of Rescue . . . . .	149
Boat Entrapment Rescues . . . . .	151
Entrapment Rescues of People . . . . .	159
<b>IX. Boat Recovery . . . . .</b>	<b>166</b>
The Force of the Current . . . . .	167
Rigging the Boat . . . . .	173
Basic Rigging Principles . . . . .	180
Haul Systems . . . . .	192
Improvised Haul Systems . . . . .	200
<b>X. Vertical Rescue . . . . .</b>	<b>205</b>
Safety Conditions . . . . .	205
Rappelling . . . . .	207
Bridge Rescues . . . . .	211
Tyrolean and High-Line Rescues . . . . .	217
Helicopters . . . . .	223
Helicopter Evacuation . . . . .	225

XI. Organization for Rescue .....	229
The Rescue Process .....	230
Leadership .....	232
Rescue Priorities .....	233
System Selection .....	233
Rescue Organization .....	235
Site Organization .....	236
If the First Attempt Fails .....	237
The Professionals .....	238
Liability .....	239
The Media .....	239
Thinking the Unthinkable—The Failed Rescue .....	240
Reactions .....	242
XII. Patient Care and Evacuation Techniques .....	245
The Initial Contact .....	246
Common Injuries .....	248
Hypothermia .....	250
Drowning .....	254
Evacuations .....	256
Moving the Litter .....	259
Appendices .....	265
A. Universal River Signals .....	265
B. Useful Knots .....	266
C. First Aid Kit .....	270
D. Patient Assessment System (PAS) .....	272
Bibliography .....	274
Organizations .....	
Index .....	
About the Authors .....	