

# THE HIKING SAFETY SYSTEMS FRAMEWORK

A Structured Model for Safer Bushwalking in Australian Conditions

## Executive Overview

The Hiking Safety Systems Framework is a structured safety model that explains hiking risk as the interaction of eight interdependent functional systems.

Rather than focusing on isolated skills, gear lists, or single mistakes, the framework recognises that most incidents develop when one system weakens and pressure transfers to others. Small breakdowns compound. Fatigue affects judgement. Exposure increases. Decision-making narrows.

By identifying early system strain, leaders can intervene before problems escalate.

Developed specifically for Australian conditions, the framework supports clearer planning, stronger supervision, and more deliberate field judgement.

## The Eight Functional Systems

- Navigation & Positioning
- Environmental Protection
- Hydration & Fuel
- Load Carrying & Mobility
- Injury & Medical Response
- Communication & Rescue
- Equipment Reliability
- Decision-Making & Judgement

Decision-making integrates how all other systems perform under pressure.

## Core Principle: Cascading Failure

Hiking incidents rarely begin with a dramatic event.

They develop when:

Navigation drift → Time pressure  
Time pressure → Fatigue  
Fatigue → Reduced judgement  
Reduced judgement → Increased exposure

Understanding this cascade allows early intervention.

## Designed For

- Outdoor educators
- Group leaders and trip coordinators
- TAFE and RTO outdoor programs
- Scout and Duke of Edinburgh leaders
- Bushwalking clubs
- Risk and governance committees

## Practical Applications

- Structured pre-trip planning
- Field-based supervision lens
- Scenario-based learning
- Post-incident debrief framework
- Professional development discussions

## Publication

### The Hiking Safety Systems Framework

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Download the full guide:

<https://www.trailhiking.com.au/hiking-safety-systems-framework/>

