

Karst Management Guidelines

Derived from *Karst Management Guidelines: Policies and Actions*

Published by Department of Conservation, May 1999, and adopted by NZSS.



Cavers should be familiar with the Karst Management Guidelines and their implications for recreational caving. This is a summary of the guidelines.

Purpose

(KMG, Section 1.1)

The Karst Management Guidelines (KMG) are intended to help DOC and other agencies more effectively manage karst and karst-like areas. They are used to help DOC make management decisions about specific sites and implement conservation management strategies. It is stated that “the policies and actions described in the guidelines should be applied at individual sites in consultation with relevant associates with a special interest in the sites” (p.3) that includes recreationalists (meaning cavers, among others).

Values of karst

(KMG, Section 3)

Karst is a resource of regional, national and international significance. It is valued for its:

- association with Māori culture
- unique attributes of natural heritage
- importance for natural history research
- utility for recreation and tourism
- role in the supply of water

The guidelines note that one of the major recreational activities in karst areas is caving, an activity that is “rapidly increasing in popularity and placing pressure on karst and caves” (p.9). They also recognise that “the largest collective group of recreational cave users is the NZSS, including its member groups, and they have played a significant role in developing caving ethics and conservation awareness, and promoting the need for appropriate management” (p.9).

Vulnerability of karst

(KMG, Section 4)

Potential impacts on subsurface features include:

- disturbance of passageways by trampling and erosion;
- broken speleothems and fossils;
- the removal of speleothems and fossils;
- the disturbance of sediment and its spread over speleothems.

The critical factors that need to be understood and addressed for the conservation of karst areas are:

- water quality;
- soils;
- vegetation cover;
- hydrology;
- underground climates and air flow;
- inputs to underground systems;
- cave deposits;
- cultural uses.

The key to reducing the vulnerability of karst areas to adverse activities is suggested as the education of the public and resource managers about:

- the value of karst and caves;
- the critical factors that contribute to their vulnerability;
- the ways in which these areas can be damaged by thoughtless actions;
- the management options to conserve them.

A useful approach to thinking about cave environments is the assessment of how the potential effects of visitors differs with cave energy levels, specifically high-energy, moderate-energy, and low-energy cave passages and systems. It is also preferable to adopt a total catchment management approach that attempts to manage the entire catchment (surface and sub-surface) rather than just karst areas alone.

Management policies for karst

(KMG, Section 5)

Seven broad policies are listed, specifying that DOC will:

- manage karst in accordance with the principles of the Treaty of Waitangi;
- manage areas of karst that it administers primarily to protect cultural values, natural heritage, and research values;
- foster a range of educational, recreational and tourism activities in karst areas to the extent that this is consistent with the other goals;
- promote appropriate protection for internationally, nationally, and regionally significant karst features that are not under its management;
- establish a viable network of representative areas of karst ecosystems, landforms, and landscapes;
- promote understanding of the attributes, values, vulnerability, and management of karst areas to DOC staff, external agencies, the public, and associates;
- work cooperatively with other people to minimise adverse impacts of external activities and processes on karst areas.

Protection of karst areas from visitor impacts

(KMG, Section 6.3)

The guidelines list a series of actions related to the conservation of karst areas that includes protection from visitor impacts. Management planning and control by DOC is intended to match visitor numbers, use patterns and behaviour to the nature of the karst resource using several mechanisms that include:

- liaison with, amongst others, local caving groups as well as NZSS, to ensure awareness and adherence to management guidelines;
- minimise the vulnerability of significant karst features to visitor impacts by educating visitors about the fragility of karst areas and appropriate behaviours they should follow;
- investigate new mechanisms to restrict access to karst sites that are sensitive or currently being damaged by visitors, including:
 - re-categorising areas for entry by permit only;
 - establishing a system that only permit holders of a recognised qualification to enter specified areas;
 - limiting public access, for example using structures or notices, where the vulnerability of significant karst features to visitor impacts cannot be adequately reduced by user education or appropriate works.

The complete Karst Management Guidelines document can be viewed on the DOC website at:

<https://www.doc.govt.nz/globalassets/documents/conservation/land-and-freshwater/land/karst-management-guidelines.pdf> .