



## Visitor Impact Management

### Description

This tool covers a range of processes and techniques for managing visitors, their activities, and their impacts, in specific areas. It is a key aspect of tourism management by both private and public organisations, especially in natural areas with special values that need protection. This review concentrates on two complementary management processes, Visitor Activity Management (VAM) and Visitor Impact Management (VIM). A number of similar processes have been developed for specific tourism settings, and these processes are described in the general sources listed in the Resources section. VAM focuses on managing visitors through their activities, i.e. the “nuts and bolts” of day-to-day visitor management. It can be a simple set of informal processes or documented in a formal framework such as the Visitor Activity Management Process (VAMP). VIM focuses on the impacts of visitors, and is usually location specific. Neither process needs focus solely on limits. They can be implemented through a range of methods, such as track hardening or other design-led solutions, timing mechanisms (see [crowding management](#) 🌿), education, behaviour management, etc.

Visitor management processes identify indicators and standards for managers to achieve desired conditions or outcomes. This is similar to a Limits of Acceptable Change ([LAC](#) 🌿) approach but the techniques described here are simpler than LAC and were developed earlier. They are more oriented to responding to managers’ perceptions than to stakeholders’ views, but VIM in particular can readily incorporate processes for [participation models](#) 🌿.

### How and when the tool is used

Visitor impact management techniques are widely used in protected area management, but formal frameworks are applied particularly in North America, Australia and New Zealand. VAMP as a formal process includes the steps:

- terms of reference and objective setting
- database development and data analysis
- development of alternative visitor activity concepts
- documentation of plan
- implementation.

It can proceed for specific areas or use broader scale of analysis for larger areas such as whole national parks.

VIM proceeds through the following steps;

- review and identification of issues
- selection of indicators
- resources inventory
- specification of standards for indicators
- implementation through an iterative process of monitoring
- comparison of impacts with standards
- identification of alternative management options if standards are not met.

It may or may not incorporate a phase of objective setting or descriptions of Recreational Opportunity Spectrum ([ROS](#) 🌿), depending on which part of an overall planning process it fits into.

Visitor management is central to the Department of Conservation’s (DOC’s) function of fostering the use of natural and historic resources for recreation, and allowing their use for tourism (to the extent that such use is consistent with the conservation of those resources). Through DOC’s Visitor Strategy, the visitor management process works through identification of values, assessment of potential visitor impacts, developing a suitable management regime, and responding to and monitoring impacts. DOC has worked on a standard process to identify key visitor impacts on conservation values. DOC and many other management agencies now make extensive use of [spatially-based planning tools](#) 🌿, such as Geographic Information Systems, to manage visitor impacts.



Systematic [monitoring](#) is crucial to visitor management processes. For example, researchers at Kaikoura studying dusky dolphin behaviour (see [biophysical carrying capacity](#)) were able to suggest potential management responses to lessen adverse effects (e.g. restricting viewing times and visitor levels). They were also able to clarify regulations and better police them, in addition to training tourism operators and educating private boat owners.

With the growth of tourism in New Zealand over the last two decades, many sites subject to heavy visitor levels and potential impacts have had tracks or other infrastructure “hardened” (i.e. physical works to build facilities to a higher performance standard) in order to absorb higher levels of visitor impacts. Such works may be undertaken by DOC, local government or private owners or concessionaires, and need to be well designed so the structures or facilities do not adversely affect (through construction effects, adverse amenity or visual effects) the natural values they are designed to protect.

The Waitomo Caves is an example of managing high physical and social visitor impacts in an iconic and fragile environment. In the past there have been problems, due to the large number of visitors, with regulating the physical environment of the caves, and concerns about the physical sustainability of the cave environment and the quality of the visitor experience. Visits to the caves are now highly managed, in groups of no more than 50 doing a one hour tour. In order to maintain CO<sub>2</sub> levels below a desired threshold, there are regular daily closures of one particular closed space within the caves, as well as limitations on overall visitor numbers when levels exceed a second threshold.

### Application

Visitor management should always be related to overall site management objectives. The investigation and analysis stages should identify the causes of impacts so that more intensive research and a monitoring framework can be set up if required. Visitor management has traditionally been based on the perceptions and interpretations of on-the-ground managers, and driven by legislation or agency policy, for example, a National Park Management Plan. The involvement of stakeholders is possible in the review of relevant objectives, the selection of key monitoring indicators and standards, and input into related management strategies. Such involvement is particularly useful if there are many valid indicators of unacceptable impacts, in which case public input can identify which are the most relevant to stakeholders’ perceptions of the most significant issues. In this way “traditional” VIM becomes quite similar to the LAC process, and in the context of New Zealand protected area management, Conservation Management Strategy or other Conservation Board processes (see [Conservation Act Framework](#)) are suitable avenues for stakeholder involvement. VAM is most usefully applied to a single site or single ROS, e.g. management of marine mammal viewing for a single species, or track construction standards for related sites. VAM is often applied to single sites, independently of any stakeholder involvement or wider strategy, relying mainly on a manager’s information, experience, or “gut feeling” about impacts and their management. This can be a very efficient and effective process where the manager is experienced and had good judgement, but risks being an ad hoc process. Generally, visitor activity or impact management should occur in a framework, whether a Conservation Management Strategy, a formal policy for given circumstances or activities, or a [Resource Management Act Framework](#) Plan.

### Our evaluation

Various forms of visitor management are basic tools in almost all forms of integrated tourism management by both private businesses and public agencies. These tools range from simple common-sense control mechanisms, through a range of physical techniques or designed solutions for improving the resilience of visitor sites, through to complex formalised processes. Most forms are oriented towards manager judgement rather than stakeholder input. They are mostly suitable for specific locations but can sometimes be used successfully across a ROS class. If used across a wider area, the processes need to be applied within a purposeful management framework or they risk being ad hoc.