

A person wearing a red shirt and a backpack is crossing a narrow suspension bridge made of wooden planks and metal mesh. The bridge spans a river with clear, turquoise water. The surrounding area is a dense forest with lush green trees and large, grey rock formations. The scene is captured from a high angle, looking down at the person as they walk across the bridge.

Part 2

Wilderness issues



Recreational use is increasing and changing in new ways.
Photos: Gordon Cessford (left); DOC (above)

Wilderness areas in New Zealand are included in an extensive system of public lands managed for conservation and appropriate recreation purposes. These articles discuss some of the current management issues affecting conservation lands, and the implications of these issues for wilderness management.

- Wilderness within world heritage: Te Wahipounamu, New Zealand. By Les Molloy and Murray Reedy.
- Wilderness and recreation in New Zealand. By Gordon Cessford and Paul Dingwall.
- Wilderness status and associated management issues in New Zealand. By Gordon Cessford and Murray Reedy.



Facility development: 'Old bridge, new bridge, or no bridge at all?' *Photo: Gordon Cessford*

Previous page: Swingbridge in the Perth Valley, an access to the Olivine Wilderness Area. Photo: Gordon Cessford

Wilderness within world heritage

Te Wahipounamu, New Zealand

By Les Molloy and Murray Reedy

The Te Wahipounamu World Heritage Area (WHA) is New Zealand's main wilderness resource. This paper discusses how the Department of Conservation's comprehensive Visitor Strategy has been used to manage visitors to the widely differing sites within the WHA. Most management effort is focussed on the increasing number of visitors who require access and facilities in the frontcountry, and the large group of discerning backcountry users who use the 'Great Walks'. However, four gazetted wilderness areas making up 10% of the WHA are strictly managed for wilderness recreation, and there are proposals to designate two more. Unresolved management issues are discussed, particularly the need for more marine conservation, better control of introduced animal pests, and the disruption of natural quiet by tourist flights.

1. TE WAHIPOUNAMU WORLD HERITAGE AREA

The south-west of the South Island of New Zealand is one of the great wildernesses of the Southern Hemisphere. It is a remote and unoccupied landscape, both forbidding and beautiful. It contains New Zealand's outstanding wild landscapes—the fiords, the Southern Alps, the great glaciers and turbulent rivers descending to the vast temperate rainforests of the West Coast, and the wide open tussock grasslands and glacial lakes in the eastern rainshadow of the Alps.

During the 1970s and 1980s, bitter resource controversies raged throughout the south-west, with wilderness advocates opposed to:

- Raising of water levels at Lake Manapouri in Fiordland National Park for hydroelectricity
- Mining of asbestos in the Red Hills ultramafic area
- The formation of a 120 km tourist road between Haast and Milford Sound
- Non-sustainable logging of the magnificent rimu and kahikatea forests of the river terraces and moraines of South Westland

This paper is an edited reprint, republished with permission, from: Watson, A.E.; Aplet, G.H.; Hende, J.C. (Eds) 1999. Personal, societal and ecological values of wilderness: Sixth World Wilderness Congress proceedings on research, management, and allocation. Vol. II; 1998 October 24–29, Bangalore, India. *Proceedings RMRS-P-000*. US Department of Agriculture, Forest Service, Rocky Mountain Research Station, Ogden, Utah.

After two decades of intense controversy, the New Zealand government unequivocally opted for conservation by reserving the lowland rainforests of South Westland, passing them to the management of the Department of Conservation (DOC) which already managed the primarily mountainous national parks. Soon afterwards in December 1991, UNESCO had no hesitation in designating this 2.6 million ha wilderness (an extraordinary 10% of the area of New Zealand) as the Te Wahipounamu (south-west New Zealand) World Heritage Area.

The name 'Te Wahipounamu' is an ancient Maori term for the whole area, meaning The Place of the Greenstone. Pounamu, or greenstone, is a nephrite found in isolated lenses along the path of the great Alpine Fault. It is highly prized for its beauty and utility by the indigenous people, the Maori, who travelled into the interior of the wilderness to gather this taonga (treasure).

Te Wahipounamu has four national parks as its cornerstones—Fiordland, Mt Aspiring, Mt Cook, and Westland. These mountainous limbs are skirted by the lowland rainforests of Waitutu and South Westland (Fig. 1). These include some of the main tourist attractions of the South Island, which all lie within the WHA:

- Milford Sound and the Milford Track
- Lake Te Anau and the Kepler Track
- The Routeburn Track and Mt Aspiring
- Mt Cook (Aoraki) and the Tasman Glacier
- The Franz Josef and the Fox Glaciers

A measure of the integrity and 'outstanding universal value' of the south-west is the recognition by UNESCO that it meets ALL four criteria for World Heritage status, because it:

- Contains major features of earth's geological history, especially the uplift of mountains along a plate boundary and the development of glacial and marine terrace landforms
- Exhibits significant on-going evolution of alpine herbfield, forest and wetland habitats since the last glaciation
- Has many areas of exceptional natural beauty and aesthetic importance
- Contains some of the most important habitats for the conservation of the biodiversity of ancient Gondwana

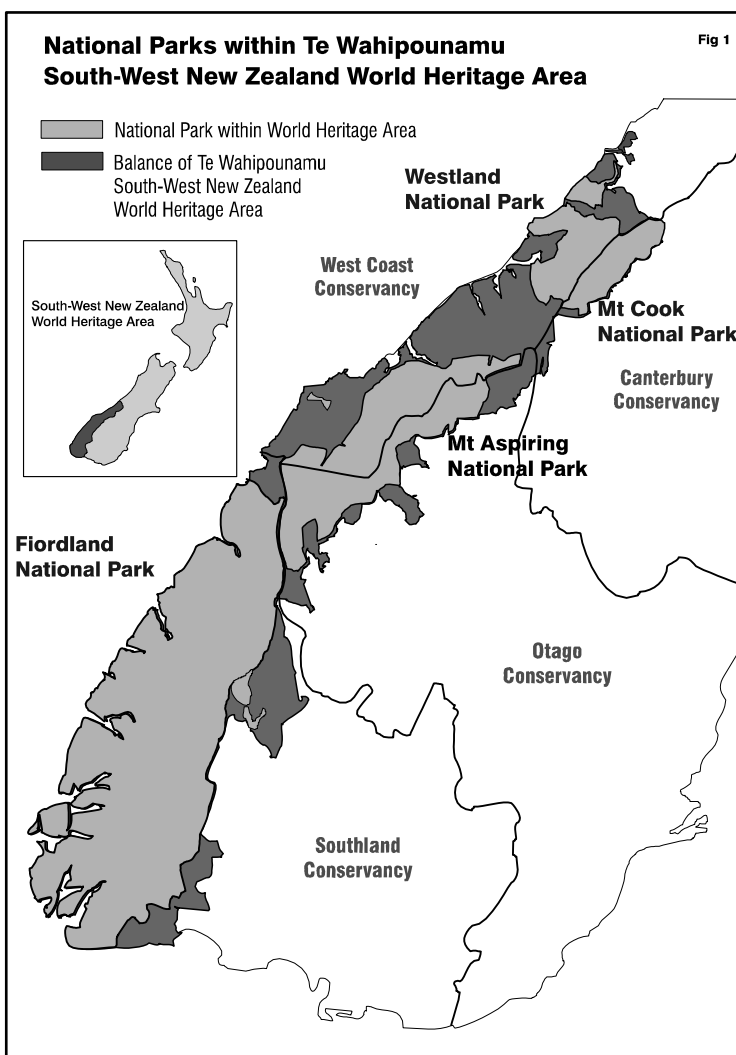


Figure 1. Map of south-west New Zealand.

2. VISITORS WITHIN THE WORLD HERITAGE AREA

Te Wahipounamu is an extremely robust landscape, defying past human attempts at settlement. The only residents are temporary, mainly associated with tourism (regulated by the Department of Conservation) or fishing in the Fjords. There are two main road corridors into and through the wilderness—the Haast Highway and the Milford Highway, each of them a narrow ribbon through the mountain passes, valleys and forested coastal plain, each vulnerable to earthquake, rockfall, avalanche and flooding in this most dynamic of

landscapes. A network of 10 visitor centres and many interpreted nature walks are dispersed along these ‘Heritage Highway’ corridors (or *aranui*), catering for visitors who want to learn more about the biodiversity and history of the landscape without having to venture far from the road (Molloy 1992).

At the other extreme, there are four wilderness areas within the WHA managed strictly in terms of the New Zealand Wilderness Policy. These areas are depicted in Fig. 2 in relation to the main visitor centres and heritage highways. They are dispersed throughout the WHA, but total some 10% of the overall area. As wilderness areas they are managed as places where visitors enter only on nature terms. There are no visitor facilities such as roads, huts and bridges; there are not even any tracks. Air access to the wilderness areas for recreational or commercial purposes is not allowed, although the Department of Conservation periodically sanctions aerial hunting of wild introduced animals, which are serious pests because of their detrimental impacts on the native flora and fauna. The wilderness areas are well buffered by remote natural landscapes, which contain only minimal visitor facilities and services. Overall, Te Wahipounamu provides recreational

and educational experiences for a wide range of visitors. The way in which an acceptable level of visitor use has been provided within such a natural World Heritage area of high biodiversity and wilderness conservation value is worth explaining more fully.

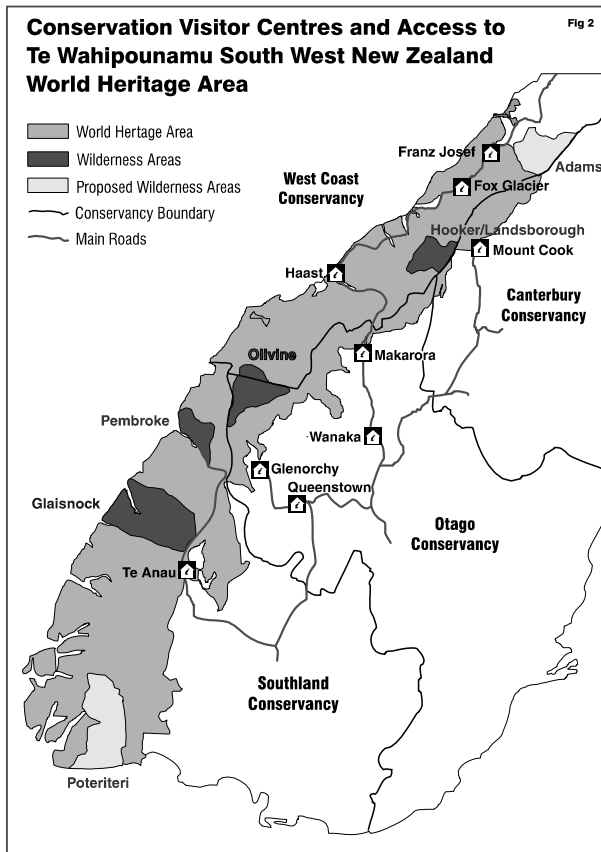


Figure 2. Map of WHA with wilderness areas marked.

3. PLANNING FRAMEWORK FOR WILDERNESS IN TE WAHIPOUNAMU

The planning framework for the management of the wilderness resource of Te Wahipounamu WHA is illustrated in Fig. 3. It spans national, regional and local communities of interest and levels of decision-making. There are four main planning entities.

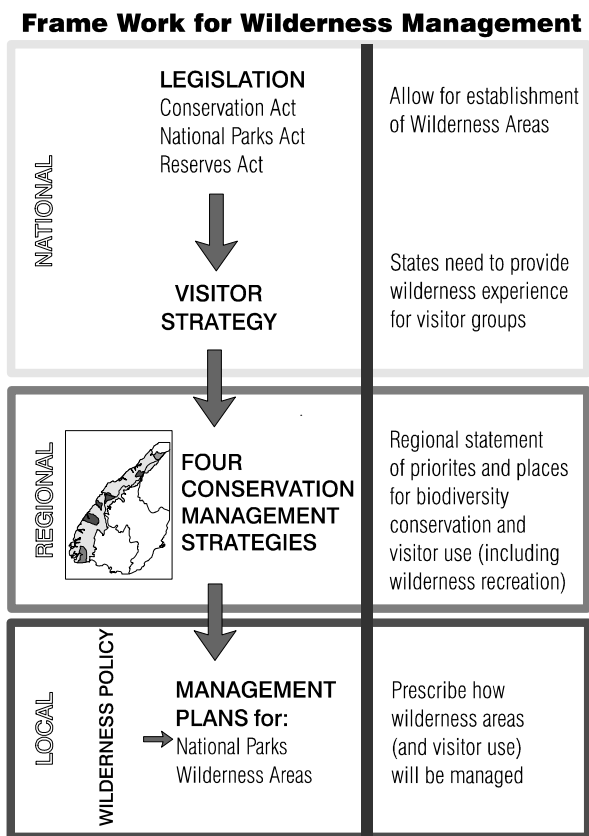


Figure 3. (Left) Planning framework for WHA.
Figure 4. (Above) Visitor groups stuff.

3.1 Legislation

In New Zealand there is no specific legislation for World Heritage management. The New Zealand conservation legislative provisions are well developed so that Te Wahipounamu, like other protected areas, is conserved through the provisions of the Conservation Act, National Parks Act and Reserves Act. Each of these pieces of legislation empowers the designation of Wilderness Areas.

3.2 Visitor strategy

The Department of Conservation manages all visitor sites within the world heritage area in terms of its Visitor Strategy (DOC 1996). The strategy divides all visitors into seven different visitor groups (Fig. 4). The department is committed to providing quality recreational opportunities and where appropriate it also provides facilities within Te Wahipounamu for six of these visitor groups:

- Short-stop travellers
- Overnights
- Day visitors
- Back-country comfort-seekers
- Back-country adventurers
- Remoteness-seekers

The seventh category of 'thrill-seekers', which includes activities such as white-water rafting and parapenting, may not take place within wilderness areas

unless the operation of the activity complies with the strict conditions of the wilderness policy.

3.3 Conservation management strategies (CMS)

These statutory documents are the regional conservation statements. They have been established for each administrative region of DOC following wide-ranging public consultation. They outline the strategic priorities and key sites for biodiversity conservation and visitor recreation (including wilderness areas). Integrated conservation management for Te Wahipounamu is achieved via four of these CMS, since the WHA spans the contiguous conservancies of West Coast, Canterbury, Otago and Southland (Reedy & Doole 1992).

3.4 Management plans

Management plans are statutory management prescriptions for specific sites within Te Wahipounamu where particular conservation objectives need to be clearly set out. Each national park has a management plan.

4. SITES AVAILABLE TO DIFFERENT VISITOR GROUPS

The inverse relationship between the size of the sites available to the different visitor groups and the number of visitors in each group is illustrated in Fig. 4. The three groups which utilise the front-country, are numerically the largest. They are the main users of the campsites, picnic areas, and short walks along the heritage highways. These visitors have different needs and expectations from visitors who use the back-country, and DOC has invested heavily in quality assurance programmes designed to ensure that a suitable standard and range of facilities are available for each user group. Overall, front-country visitors are confined to highway corridors where impacts are localised.

Visitors who use the back-country of Te Wahipounamu fall into two main groups: those who desire facilities and those who desire wilderness. There are two groups of visitors who desire facilities, the back-country adventurer (BCA) and back-country comfort-seeker (BCC) categories. The characteristics of BCA and BCC visitors are similar in only their common requirement for huts, tracks, and bridges to facilitate access and enjoyment. In the past 10 years or so some BCC sites within Te Wahipounamu have become a Mecca for overseas back-packers. This group want the highest standard of facilities possible, consistent with a back-country experience. They have become the dominant users of some Great Walks (like the Milford, Kepler, Routeburn, and Greenstone Tracks) and a number of lesser known 'Top Tracks' (such as the Dusky Track, Hollyford Track, Rees-Dart circuit, and Copland Valley Track). On the other hand many back-country adventurers are holidaying New Zealanders, who are now choosing more remote back-country sites to avoid the sites that are popular with overseas back-packers.

The Department of Conservation has developed a comprehensive Visitor Asset Management System (VAMS) to delineate all visitor sites with facilities (3700

nation-wide) and inventory the 15,300 structures used by the different visitor groups to these sites. This system has been established to provide quality assurance across the whole spectrum of sites that visitors use. Nationally there are a total of 1280 BCA/BCC sites in the back-country. Relatively few are provided specifically for BCC's (132), but these sites are expensive to operate and are a significant cost against the total visitor asset. Conversely, many structures on BCA sites are failing the standards now set by the quality assurance programme. The dilemma of this situation is compounded by the need for DOC to invest in facilities and opportunities that return the best outcomes for both conservation and visitors. As the new quality assurance programme begins to bite, the quantum of facilities available to visitors will shrink, causing more competition for space and heightening the tensions between BCA and BCC groups.

Within Te Wahipounamu the contrast between the two types of back-country visitor group sites is even more acute because the BCC sites are the most popular with overseas visitors. This has created a disparity where virtually all the BCC sites are high priority Great Walks used by many overseas back-packers (e.g. Milford, Routeburn, Kepler tracks), while the bulk of the BCA sites are frequented by significantly fewer visitors, who are mostly New Zealanders. The likely outcome, as these BCA facilities fail to meet quality assurance standards over time, is that large sections of Te Wahipounamu will become *de facto* wilderness areas—joining the four *de jure* wilderness areas, to provide a vast resource of wild land.

The eventual reduction in BCA sites, therefore, will benefit the numerically smallest back-country visitor group, the remoteness-seekers, who are not facilities dependent (see Fig. 4). Remoteness-seekers are remarkably well provided for now in Te Wahipounamu and they will eventually have about 2 million ha of wilderness (including the four designated wilderness areas) available for wilderness recreation in the WHA. However, this group does still have a valid claim in their assertion that DOC and the NZ Conservation Authority have been slow to implement the recommendations of the 1981 Wilderness Conference (Molloy 1983) and Government's Wilderness Advisory Group for two more gazetted wilderness areas within Te Wahipounamu. These two proposals lie at the extreme ends of the world heritage area. The Adams is based on the 2 large northern glacial neves of the Garden of Eden and Allah, and the Poteriteri is based on the extensive lowland forests and lakes of southern Fiordland. In its most recent strategic business plan (DOC 1998), the Department of Conservation has identified the designation of these two wilderness areas as a priority objective.

5. ISSUES RESOLVED IN MANAGEMENT OF TE WAHIPOUNAMU

In the past 20 years a remarkable number of resource and management issues have been resolved in the south-west, each conferring stronger protection or allowing greater conservation value to be accumulated within the protected areas. Some of these major achievements were:

- The raising of Lake Manapouri and Lake Wanaka water levels for electricity generation purposes was stopped.
- The mineralised ultramafic Red Hills area was incorporated within Mt Aspiring National Park.
- The lowland podocarp rainforests of South Westland was protected from logging.
- Grazing was gradually phased-out from the Mavora Lakes area and the valleys radiating from Mt Aspiring National Park.
- The Ngai Tahu tribe's claim for redress of rights under the Treaty of Waitangi was settled.
- A regime for the management of tourist concessions was established.
- Regional Conservation Management Strategies for the whole of Te Wahipounamu were prepared, providing the basis for integrated management by DOC.
- Formal protection was established for the Hooker-Landsborough and Olivine Wilderness Areas.

The Ngai Tahu tribe were major partners in the nomination of the world heritage site proposal to UNESCO. Indeed, the name 'Te Wahipounamu' was their suggestion because it was a traditional name, which embraced the whole south-west. The settlement of their Treaty claim has a number of interesting management implications for the World Heritage Area:

- The name of Mt Cook will become 'Aoraki/Mt Cook', and 88 other topographic features will in future have dual Maori/English names.
- Title for Aoraki will be returned to Ngai Tahu who will, in turn, gift Aoraki to the people of New Zealand 'as an enduring symbol of Ngai Tahu's commitment to co-manage with the Crown areas of high historical, cultural and conservation value'.
- The tribe will be given rights of access and temporary occupancy for the customary gathering of traditional foods and other materials.

6. ISSUES STILL TO BE RESOLVED WITHIN TE WAHIPOUNAMU

In a natural area as large as Te Wahipounamu it is not surprising that there are still a number of policy and management issues that need to be resolved. They include:

- Possible construction of a Haast-Hollyford Road
- Forging of a working partnership with the Ngai Tahu iwi (tribe).
- Preserving 'natural quiet', which is often disrupted by tourist aircraft.
- Establishing a marine component to the world heritage area, and better protection of the coastal 'wilderness'.

- Reducing populations of introduced animal pests to ecologically acceptable levels.
- Addressing the future of cattle-grazing licences within a few remaining valleys.

The proposal, from some sectors of local government and the tourist industry, for a 120 km toll-road linking Haast with the Hollyford Valley (near Milford Sound) is the most overt threat to the integrity of Te Wahipounamu and its wilderness. It is an issue that seems, for the present, to have had its teeth pulled by the combination of New Zealand's stringent resource management legislation, the high cost of construction, the measures required to mitigate environmental effects and the weight of adverse public opinion. It would also seriously impinge on the buffer to the Olivine Wilderness Area if it were to be constructed.

Protecting the 'natural quiet' of wilderness has become a significant issue in Te Wahipounamu where a burgeoning industry based on tourist aircraft overflights is raising tensions between back-country visitors (RS, BCC, and BCA groups) and front-country visitors (SST, ON, DV groups). Air access policies are set down in DOC regional Conservation Management Strategies, but overflights can not be regulated by these documents. DOC and civil aviation regulatory authorities are working with air transport operators to resolve this matter in ways that accommodate the needs of all parties.

The two most important biodiversity conservation issues are: the lack of marine protection in the fiords and along the south coast of Fiordland, and the continuing need for control of the wild, introduced animals impacting on the flora and fauna of the world heritage area.

The marine environment of Te Wahipounamu is not protected by the National Park or Conservation Area status of the adjoining land. In Fiordland National Park the marine ecosystems within the fiords are unique in the world for the combined effects of freshwater/saltwater circulation and the diversity of warm, cold and deep water marine species. Added to this is the unparalleled wilderness value of the 1,900 km of unprotected wild uninhabited coastline within the sheltered environment of the fiords. Protection of the World Heritage Area coastal/marine environments has been complicated by a set of circumstances similar to those regarding the protection of 'natural quiet'. Regional Conservation Management Strategies can advocate for protection of the coastal/marine environment but they are dependent on partnerships with community, other agencies, iwi Maori and the support of other statutory planning documents. In the case of Te Wahipounamu, two Marine Reserves have been established in the fiords, and additional areas have been identified for protection but these measures are as yet insufficient for ecosystem protection and more consideration needs to be given to other protection measures. Some recent measures have been taken to protect the wilderness values of the 'wild' coastline by co-ordinating the statutory policies of DOC (Mainland Southland CMS) and Local Government (Southland District Plan).

Introduced herbivores and predators are having a severe impact on the natural diversity of Te Wahipounamu. Red deer are widespread. Other browsing mammals such as wapiti, fallow deer, goat, chamois have restricted

distributions but the combination of these animals threatens the integrity of the forest and alpine ecosystems. In the north and west of the WHA the Australian brushtail possum has caused severe mortality in montane hardwood forests and introduced mustelids and rodents have had a widespread and devastating impact on indigenous fauna. Several species have become extinct and others are endangered or in decline. DOC has had to find innovative ways to deal with these threats to stave off further extinctions and loss of biodiversity. Historically the thrust has been towards close-order species management but in recent years new initiatives have focused on integrated programmes targeted at the critical pests within priority places. This method has required conservation biologists and ecologists to identify places where natural diversity is greatest and where specifically targeted interventions will have the greatest outcomes for conservation. An example of is conserving the endangered Okarito Brown Kiwi (*Apteryx* “Okarito Brown”)—a rare ground-nesting bird—which is confined to a relatively small area of lowland forest otherwise occupied by many introduced pests. In this situation research has determined that of just two pests, stoats (*Mustela ermina*) and Australian brushtail possum (*Trichosurus vulpecula*) are critical threats to the survival of Okarito Brown Kiwis. Control measures against these two pests also has significant additional conservation benefits, which when integrated with on-going Okarito Brown Kiwi species-specific conservation measures, will have positive conservation outcomes for Okarito Brown Kiwis and the natural systems that support them.

7. CONCLUSIONS

The vast wilderness resource within Te Wahipounamu is now under sound management with regard to the provision of opportunities for visitors and regulations of their impacts. The integrity of New Zealand’s greatest wild landscape has been protected from human exploitation—no mean achievement.

There is a number of remaining concerns for biodiversity conservation, especially from the impacts of introduced animal pests. In many respects this remains the single greatest threat to the natural diversity of Te Wahipounamu. It could be argued that the protected marine ecosystems adjacent to Te Wahipounamu are not sufficient to provide a representative marine component to the WHA. However, regional Conservation Management Strategies have set priorities and goals for biodiversity conservation, including protection of the coastal and marine systems, and these will be systematically implemented.

There is a question as to the need for a process that might better integrate the four Conservation Management Strategies, which relate to Te Wahipounamu. These strategies are the principal means of achieving the conservation and protection goals of the world heritage area, but they are essentially stand-alone documents. It remains to be seen if the statutory framework which underpins the protected status of the area is sufficient to ensure that management can achieve all of the conservation outcomes required to ensure the continuing integrity of Te Wahipounamu as a natural heritage property.

8. REFERENCES

- Department of Conservation (DOC) 1996. Visitor strategy. Department of Conservation, Wellington, New Zealand.
- Department of Conservation (DOC) 1998. Restoring the dawn chorus: Strategic business plan. Department of Conservation, Wellington, New Zealand.
- Molloy, L.F. 1983. (Ed.) Wilderness Recreation in New Zealand: Proceedings of the FMC 50th Jubilee Conference on Wilderness, 1981. Federated Mountain Clubs of New Zealand, Wellington.
- Molloy, L.F. 1992. Te Wahipounamu—An approach to the interpretation of World Heritage Wilderness. Pp. 286-289 in Tabata, R.S. et al. (Eds) Proceedings of the Heritage Interpretation International 3rd Global Congress, November 1991. University of Hawaii, Honolulu, Hawaii.
- Reedy, M.C.; Doole, P. 1992. Te Wahipounamu—Options for integrated management of South West New Zealand World Heritage Area. In: Proceedings of the Australia, New Zealand, Pacific, World Heritage Wilderness Managers Forum, October 1991. Tasmanian Parks and Wildlife Service, Tasmania.

Continue to next file: WildernessC.pdf