Tongariro National Park

2017 Conservation Outlook Assessment

SITE INFORMATION

Country: New Zealand
Inscribed in: 1993
Criteria: (vi) (vii) (viii)

Site description:

In 1993 Tongariro became the first property to be inscribed on the World Heritage List under the revised criteria describing cultural landscapes. The mountains at the heart of the park have cultural and religious significance for the Maori people and symbolize the spiritual links between this community and its environment. The park has active and extinct volcanoes, a diverse range of ecosystems and some spectacular landscapes.

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SUMMARY

2017 Conservation Outlook

GOOD

The conservation outlook for the site is good. The outstanding universal value of this property benefits from strong and effective legal, institutional and management regimes. Management is guided by a comprehensive management plan, is resourced in terms of finance and staffing, and has the support of key stakeholders. There is close collaboration with local indigenous communities but increasing concern is being expressed by them and interest groups that the management plan and its policies do not adequately protect their assessment of environmental and cultural values. Threats to the property from both internal and external sources are well recognized and understood, and most are subject to active, appropriate and effective management intervention which is, however, requiring increasing resources to continue to be effective.

Current state and trend of VALUES

Low Concern
Trend: Stable

The outstanding universal value and attributes of the property can currently be assessed as in a good and stable state. There is, however, growing concern form some indigenous groups and interest groups that commercial developments and infrastructure to cater for the increased visitor demand in the property are inconsistent with World Heritage values. In particular, they have expressed concern at redevelopment proposals of existing ski fields. The scenic and aesthetic values are essentially intact throughout the property. The outstanding geological features are protected and operate under natural processes, apart from some limited management intervention to reduce the hazards to people and property.
**Overall THREATS**

**Low Threat**

Overall the level of threat from the several factors affecting the property can be assessed as low. The most prominent threats are from growth in visitor numbers leading to overcrowding, which exceeds the social carrying capacity of key recreation sites at peak visit times. This growth in numbers is also creating greater demand for new facilities and infrastructure; from natural hazard events, especially lahars which have caused deaths and destroyed property; and from the impacts on native biota of introduced plants and browsing and predatory animals. Skifield development, though largely under control, remains a latent threat to both cultural and natural values. Some indigenous groups are opposed to any commercial development including redevelopment on existing ski fields. All these serious threats to the property are being closely monitored and effectively managed for the most part. The continuing growth of tourist use and demand remains the most difficult management challenge.

**Overall PROTECTION and MANAGEMENT**

**Highly Effective**

Overall the protection and management of the Tongariro NP property can be assessed as highly effective. The outstanding universal value of property is securely protected under a management regime which sets an enviable standard for properties inscribed under the World Heritage Convention. The overall legal, institutional and management framework of the property is strong with few weaknesses. Both internal and external threats are clearly recognized and well monitored, and are subject to appropriate and effective management intervention guided by a comprehensive and sophisticated management planning system which has the support of key stakeholders.

There is close collaboration with local indigenous communities but they express increasing concern that the management plan and its policies do not adequately protect their assessment of environmental and cultural values. There is concern about the level of funding available to effectively manage the property, which is being further stretched by increasing pressure from visitors.
FULL ASSESSMENT

Description of values

Values

World Heritage values

► Volcanic mountain landscape of exceptional natural beauty
   Criterion:(vii)

   The active volcanic peaks of Ruapehu, Tongariro and Ngauruhoe, surmounting an upland volcanic plateau at the centre of the North Island, form one of the most distinctive and attractive natural landscapes in New Zealand. Mount Ruapehu’s ice-bound crater lake, and the comprehensive range of landforms created by both past and present interactions of the volcanic material with the surrounding glaciers and lake waters, are considered superlative natural phenomena (DOC, 2006a; 2012)

► The most frequently active composite volcano complex in the world
   Criterion:(viii)

   Located at the south-western terminus of the Pacific “Ring of Fire”, the volcanic complex is the most spectacular example of andesitic mountain-building in the south-west Pacific. Volcanic activity is the result of subduction of the oceanic Pacific Plate beneath the Indo- Australian Plate and the volcanoes have a geological history dating back one million years. The active Tongariro, Ngauruhoe and Ruapehu volcanoes consist of recent cones, craters, explosion pits, lava flows, lakes and hot springs. Mount Ruapehu has a continually steaming crater lake surrounded by permanent ice fields from which, over the last 150 years, there have been at least 40 steam and ash eruptions and lahars (destructive fluid mixtures of volcanic debris and water). Tongariro also contains extensive tephra deposits from the world’s most
powerful volcanic eruption of the last 5000 years, the Taupo ‘super-volcano’, whose large caldera is now filled by nearby Lake Taupo. During the last ice age Ruapehu and Tongariro carried glaciers which carved valleys and deposited moraines, but today only a remnant ice field remains on Ruapehu (DOC 2006a; 2012).

Other important biodiversity values

- Remarkable diversity of plant habitats.

The altitudinal sequence of vegetation begins with tall mature lowland podocarp/hardwood rainforest and passes upwards through a broad zone of montane beech forests, shrubland, tussockland and alpine gravelfields. The diversity of habitats is due to the wide altitudinal and aspect range, the extent of periodic eruptions, the depth and composition of the ejected tephra, and climatic variation. Vertebrate fauna are mainly restricted to birds with more than 56 spp. present (DOC, 2006; 2012).

Assessment information

Threats

Current Threats

Low Threat

Several factors present a low level of threat to the property. The greatest threats are from visitor overcrowding, which exceeds the social carrying capacity of key recreation sites at peak visit periods; from natural hazard events, especially lahars which have caused deaths and destroyed property; and from the impacts on native biota of introduced plants and browsing and predatory animals. Skifield development, though largely under control, remains a latent threat to both cultural and natural values. Some indigenous groups are opposed to any commercial developments including redevelopment of facilities on existing ski fields. Pressure from increased visitation is placing increasing
demands on key recreation sites and associated infrastructure. There is growing pressure on the government to provide more facilities and infrastructure to cater for this demand.

**Volcanoes**

*Low Threat*

- **Inside site**
- **Outside site**

Visitors and property are exposed to high levels of hazard from extreme weather, snow avalanche, volcanic eruption and lahar events. Hazards are well-recognized and subject to intensive public safety control operations, including a sophisticated eruption detection system and a lahar early warning alarm system (DOC, 2006a).

**Tourism/ Recreation Areas**

*Low Threat*

- **Inside site, localised (<5%)**

Commercial skifields occupy some 10% of Mt Ruapehu and 3% of the property. There are two major commercially operated skifields requiring intensive management during winter. Key issues are: physical impacts on soils and snow packs; public safety regarding weather, avalanche, volcanic eruption and lahar events; access and transport; facilities development and demand for expansion of ski areas.

There is an increasing concern from some indigenous groups at the presence of the ski fields and in particular any redevelopment of facilities. Professional staff are employed and there is an excellent working relationship with operators (DOC, 2006a).

A recent diesel spill had a serious impact on- and off-site, polluting a stream and the water supply of an adjacent town.

**Invasive Non-Native/ Alien Species**

*Low Threat*

- **Inside site, scattered (5-15%)**
- **Outside site**

Introduced heather and lodgepole pine threaten native plant communities over extensive areas. Introduced browsing and predatory mammals, especially rats, cats, mustelids, opossums, pigs and deer, have a severe
impact on plants and on native bird populations in particular. Intensive pest control programs exist. (except for heather) and sport hunting of deer and pigs is permitted under licence (DOC, 2006a; 2012).

**Tourism/visitors/recreation**

**Low Threat**

*Inside site, localised (<5%)*

The property is a popular destination for outdoor recreation, with a high and growing demand for tourist facilities and infrastructure development. At peak times there is serious overcrowding at car parks, huts and tracks (trails), and some major tracks have reached social carrying capacity. Control measures include encouraging alternative activities in the region, channeling growth to sustainable areas and limiting development at affected sites. Managing the growth in tourist use and demand is recognized as a major management problem (DOC, 2006a).

**Potential Threats**

**Very Low Threat**

There is small scale storage of diesel and sewage together with a reticulated sewage scheme. These are closely monitored with a significant upgrade planned to the reticulated sewage system at Whakapapa to provide better treatment of the sewerage (MWRC 2017).

**Other**

*Very Low Threat*

*Inside site, localised (<5%)*

*Outside site*

There is small scale storage of diesel and sewage together with a reticulated sewage scheme. These are closely monitored (DOC 2006a). The reticulated sewage system is currently being upgraded to ensure more effective treatment (MWRC 2017).

**Protection and management**
Assessing Protection and Management

► Relationships with local people

Some Concern

Local indigenous people have a long-standing, statutory and working relationship with the authorities in protection and management. Most key statutory and non-statutory bodies in the area support the property, are consulted in management policy making and planning, and in some cases are jointly involved in management projects (DOC, 2006a). However, there is increasing concern from some indigenous groups that the management plan and its policies in relationship to skifield development are inconsistent with their own cultural values and those applicable to World Heritage status. These concerns may be addressed through the impending Wai 1130: Te Kāhui Maunga settlement between the Crown and local iwi which will influence the future management and potentially the governance of the property (IUCN Consultation, 2017).

► Legal framework and enforcement

Mostly Effective

Application of very comprehensive national, regional and local legislation currently provides security of protection (DOC, 2006a). However, in Nov. 2013 the Waitangi Tribunal recommended that the property should be managed in future by a new “statutory authority comprising Crown and iwi representatives”, with current management authority removed from the Department of Conservation (Wai 1130: Te Kāhui Maunga: the National Park District Inquiry report, 2013). The Tribunal’s recommendations are not binding on the NZ Government but the issue has placed the future effective legal status (and management) of the property in question. Negotiations between Crown and Iwi will begin shortly, through the Treaty of Waitangi settlement process. The final settlement negotiated through this process could result in significant changes to the ownership, governance and management of the property (IUCN Consultation, 2017).
**Enforcement**

Highly Effective

Enforcement (including fire control) is carried out by the governing body responsible for the property and it is supported by a strong legal framework.

**Integration into regional and national planning systems**

Highly Effective

Property management is closely tied to statutory planning systems of local and district governments (DOC, 2006a), which include protection of outstanding landscape values and natural values within the National Park (RDC 2014, TDC 2007).

**Management system**

Mostly Effective

The property is managed under a very comprehensive statutory management plan (2006), which is consulted with the public and binding on the government. The plan was revised in 2011 in respect of some recreation uses, including mountain biking, over-snow vehicle use and commercial concessions for transport to skifields and other areas (DOC, 2006a; 2006b; 2011). The Plan is currently going through another minor revision process to allow the development of a shared use trail on the southern side of Mount Ruapehu (Tongariro National Park Management Plan Partial Review, 2017). The management plan is to be reviewed fully every ten years. This full review is currently overdue and has been deferred until the Wai 1130: Te Kāhui Maunga treaty settlement process is completed, there is no set date as to when that will occur.

**Management effectiveness**

Highly Effective

The property is extremely well managed under a very strong legal, institutional and management framework. The property is zoned for different types and levels of use into wilderness/pristine areas (covering 30%), amenity areas and skifield areas (DOC 2006a).
Implementation of Committee decisions and recommendations
Highly Effective

In 1990 at the time of inscription as a natural property the Committee recommended that greater account be taken of the cultural values of the property. In 1993 the property was inscribed under criterion (vi) as the first cultural landscape under the Convention (17COM). In response to concerns from Maori about use of poisons to control possum pests, the authorities agreed to a time-limited operation to prevent contamination of natural waterways (19COM VII.A.2.18/19). In 1998 the Committee was notified of plans to mitigate hazards from volcanic eruption and lahars on Mt Ruapehu. Eruption detection and lahar early warning alarm systems were subsequently implemented following wide public consultation, including recognition of sensitivity in respect of the cultural values of the mountain (22COM XI).

Boundaries
Highly Effective

Boundaries are well marked and appropriate to ensure integrity of the serial property (DOC, 2006a).

Sustainable finance
Mostly Effective

Financial resources, obtained from national and local sources are struggling to keep up with the increasing demands associated with managing the site, including the pressures on existing infrastructure from the growth in visitors. This has been supplemented by a growth on voluntary work (predominantly biodiversity projects) within the property however.

Staff training and development
Highly Effective

Very well -trained and -qualified staff with on-going training and capacity building opportunities available (DOC, 2006a). Recent restructuring within the Department of Conservation however has resulted in a high rate of staff turnover, however there has been an increase in the number of NGO’s
initiating conservation management projects within the property.

► Sustainable use
Highly Effective

All natural and cultural values are strictly protected and no other uses of resources are permitted, apart from the rights of the indigenous people to collect some plants for cultural purposes (DOC, 2006a).

► Education and interpretation programs
Highly Effective

A school education programme exists and interpretation of the property is aided by extensive use of the media and a large visitor centre (DOC, 2006a). Interpretation material is present in the public huts throughout the property, however there is little interpretation of the cultural values of the property.

► Tourism and interpretation
Some Concern

The property is a major tourist attraction of national significance, attracting over one million visitors annually. Managing the growth in tourist use and demand and the effect which that increased visitation has on the environment is recognized as a major management problem (DOC, 2006a). This growth in demand is also placing pressure on the government to develop more facilities and infrastructure to cater for this demand. There is currently no restriction on numbers accessing the property.

► Monitoring
Highly Effective

All key natural and cultural values and attributes are subject to appropriate monitoring regimes (DOC, 2006a).

► Research
Highly Effective

Wide-ranging research is on-going, including collaborative research and monitoring with national science agencies on natural hazards in particular
Overall assessment of protection and management
Highly Effective

Overall the protection and management of the Tongariro NP property can be assessed as highly effective. The outstanding universal value of property is securely protected under a management regime which sets an enviable standard for properties inscribed under the World Heritage Convention. The overall legal, institutional and management framework of the property is strong with few weaknesses. Both internal and external threats are clearly recognized and well monitored, and are subject to appropriate and effective management intervention guided by a comprehensive and sophisticated management planning system which has the support of key stakeholders. There is close collaboration with local indigenous communities but they express increasing concern that the management plan and its policies do not adequately protect their assessment of environmental and cultural values. There is concern about the level of funding available to effectively manage the property, which is being further stretched by increasing pressure from visitors.

▶ Assessment of the effectiveness of protection and management in addressing threats outside the site
Highly Effective

There are few external threats to the property, apart from the incursion of plant and animal pests, which are subject to controls. Development adjacent to the property is regulated by local government through local plans (RDC 2014, TDC 2007).

▶ Best practice examples

The Tongariro NP property has a formal twinning (sisterhood) relationship with the Jeju Volcanic Island and Lava Tubes World Heritage property in Korea, guided by a memorandum of understanding.

State and trend of values
Assessing the current state and trend of values

World Heritage values

▶ Volcanic mountain landscape of exceptional natural beauty
   Good
   Trend: Stable

The scenic and aesthetic values are essentially intact throughout the property. Apart from skifields and other limited recreation facilities and services infrastructure, the property is free from excessive or inappropriate human development, however increasing visitation means more demand for additional facilities. (DOC, 2006a; IUCN Consultation, 2017).

▶ The most frequently active composite volcano complex in the world
   Good
   Trend: Stable

The geological values and attributes of the property, though highly dynamic, often destructive and in a constant state of flux, are essentially operating under natural laws and processes. Human intervention is limited to providing for safety and security of people and property to reduce the high level of hazard from volcanic eruption and associated destructive events (DOC, 2006a).

Summary of the Values

▶ Assessment of the current state and trend of World Heritage values
   Low Concern
   Trend: Stable

The outstanding universal value and attributes of the property can currently be assessed as in a good and stable state. There is, however, growing concern form some indigenous groups and interest groups that commercial developments and infrastructure to cater for the increased visitor demand in the property are inconsistent with World Heritage values. In particular, they have expressed concern at redevelopment proposals of existing ski fields.
The scenic and aesthetic values are essentially intact throughout the property. The outstanding geological features are protected and operate under natural processes, apart from some limited management intervention to reduce the hazards to people and property.

➤ Assessment of the current state and trend of other important biodiversity values

Good

Trend: Stable

Biodiversity values are considered stable with no identified significant change in biodiversity values noted. Invasive animal and plant pests are being managed effectively with new technologies being used to aid this work.

Additional information

Benefits

Understanding Benefits

➤ Soil stabilisation, Water provision (importance for water quantity and quality)

It is of fundamental importance in the protection and sustainable conservation of climatic, hydrological, soil and other ecological services and amenities.

➤ History and tradition, Sacred natural sites or landscapes

The property recognizes and protects traditional beliefs and customs of the local indigenous peoples, which symbolize the intimate association of the people with the land. These associative cultural values were fundamental to the genesis of the property as a national park and as the first cultural landscape inscribed under the World Heritage Convention.
Outdoor recreation and tourism

The property is of great significance for outdoor recreation, especially skiing and hiking, and is among the most well-known and popular national tourist destinations.

Factors negatively affecting provision of this benefit:
- Overexploitation: Impact level - Moderate, Trend - Increasing

Importance for research

The property protects a natural volcanic complex of international scientific interest and global conservation significance.

Summary of benefits

The Tongariro NP World Heritage property recognizes and protects beliefs and traditions symbolizing the intimate association of the local indigenous people with the land. It is a nationally and internationally significant tourist destination for outdoor recreation activities, and is significant in protection of the natural environment and the sustainable conservation of fundamentally important climatic, hydrological, soil and other ecological services.

Projects

Compilation of active conservation projects

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<th>Organization/individuals</th>
<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<td>1</td>
<td>Project Tongariro</td>
<td>Rotopounamu - Pihanga Restoration Project.</td>
<td>Project Tongariro and the Department of Conservation (DoC) are currently developing an operating plan which aims to protect the native biodiversity of Mt Pihanga and Lake Rotopounamu by adopting a sustained integrated management approach. The area is apart of Tongariro National Park and the World Heritage Site. The project is to be community focused with integrated pest management and advocacy at its core.</td>
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## REFERENCES

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<td>Manawatu Whanganui Regional Council (MWRC) <a href="http://www.horizons.govt.nz/managing-natural-resources/cons">http://www.horizons.govt.nz/managing-natural-resources/cons</a>...</td>
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<td>Ruapehu District Council (RDC) 2014. Ruapehu District Plan</td>
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