

# Why Wilderness Should Be Remote

BY MARTIN HAWES

What impact do developments such as tourist lodges and helipads have on wilderness values? What are the consequences of constructing a walkers' hut (cabin) in a previously hut-free wilderness? These questions have immediate relevance in Australia's island state of Tasmania, where the government is encouraging developments that could include the installation of huts, luxury lodges, and helicopter landing sites in remote parts of the Tasmanian Wilderness World Heritage Area (Tasmania 2016).

Advocates of such developments have argued that the impacts would be confined to small areas (Darby 2015). The same argument could be used to justify developments such as roads, cable cars, or oil drilling in or adjacent to wilderness areas (see, e.g., Western Energy Alliance 2016). The flaw in this argument is that human structures and activities have impacts beyond their immediate vicinity, impacts that can be detrimental to the recreational, aesthetic, and other intangible values of wilderness. To protect these values, we need to recognize remoteness as a defining characteristic of wilderness, and ensure that wilderness reserves protect remote country.

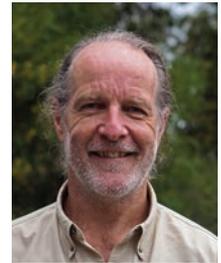
## The Significance of Remoteness

Remoteness is an essential ingredient of what has been called the "wilderness experience" (Fredrickson and Anderson 1999). The further one stands from roads, buildings, and other trappings of modern civilization, the greater one's opportunity for experiencing solitude and a sense of "immersion" in the natural world (Dawson 2004; Landres 2013). The phrase "modern civilization" acknowledges that many areas now regarded as wilderness have been (and in many cases, still are) occupied, utilized, and modified by indigenous people following traditional wilderness-based ways of life.

Natural landscapes that include remote areas are conducive to the appreciation of boundlessness, immensity, and that special quality of silence that one senses in wild places. Visiting remote places, especially those remote enough to require at least one overnight stay, requires undertaking journeys that demand self-reliance, heightening the sense of "passage" to a more primal state (Borrie and Roggenbuck 2001). Remote places frequently provide the settings for profound and life-changing experiences (Ewert et al. 2011), for personal growth (Roggenbuck and Driver 2000), for artistic inspiration (Ashley et al. 2015), and for awakening "a sense of relationship and interconnectivity with the community of life" (Landres et al. 2015).

The presence of infrastructure and other evidence of modern society impacts the qualities of wilderness in a variety of ways, often over considerable distances. A hut offers shelter, but at the price of self-reliance. A helipad signals that the peace of one's environs is intermittently shattered. An airstrip or mining scar can mar the viewfield of distant peaks. The knowledge that a summit has been accessorized with a radio tower alters one's perception of the landscape that contains it, whether one is standing in that landscape or contemplating it from afar.

Remoteness can protect cultural values such as those associated with indigenous relics (DPIPWE 2016). It can also have ecological benefits, providing a defense against disturbances such as air pollution, species invasion, fire, and poaching (Mackey et al. 1998; Casson et al. 2016; Lemieux 2016). Reserves designed to keep places remote tend to be large, have convex boundaries, and have low boundary-to-area ratios: characteristics that enhance their suitability for protecting ecological values on a landscape scale (Mackey et



Martin Hawes

al. 1998; Margules and Pressey 2000; European Commission 2013).

### Remoteness as a Defining Characteristic of Wilderness

Wilderness has often been defined as remote or in terms that imply remoteness. For example, Leopold (1921) defined wilderness as a continuous stretch of natural country large enough to accommodate a two-week pack trip. Robertson et al. (1992) proposed that wilderness should be “remote at its core from points of mechanised access and other evidence of colonial and modern technological society.” The requirement in the US Wilderness Act that a wilderness area provide “outstanding opportunities for solitude or a primitive and unconfined type of recreation” (US Public Law 88-577) can be interpreted as implying that it should include remote country (Landres et al. 2015).

But remoteness is not an explicit requirement of the US Wilderness Act, and it is not clearly implied by the definitions of wilderness adopted by the IUCN and the European Commission (EC). Each of these definitions characterizes wilderness areas as large, natural, and free of permanent settlements. The EC definition adds that wilderness should be “without intrusive or extractive human activity ... infrastructure or visual disturbance” (European Commission 2013).

The requirement that an area be large does not guarantee that any part of it will be remote, or that its qualities of remoteness will be adequately protected. For example, a riverine reserve could exceed the US Wilderness Act minimum threshold of 5,000 acres (2,023 hectares) many times over, yet be no more than a kilometer wide at any point. If 2 hectares (4.9 acres) in the remotest part of a designated wilderness area were rezoned to

accommodate a tourist lodge, it is not clear from the IUCN definition that any values would be lost apart from the 2-hectare deficit.

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Guidelines for applying the IUCN, EC, and US Wilderness Act definitions include statements that can be interpreted as requiring remoteness (Casson et al. 2016; European Commission 2013; Landres et al. 2015). However, none of these guidelines explicitly requires wilderness to be remote; hence none of them definitively excludes enclaves or boundary indentations that would compromise remoteness.

### Defining and Quantifying Wilderness Character

One can avoid this difficulty by defining wilderness character as the degree to which a location is undisturbed by *and remote from* the influences of modern technological society (Lesslie 2016). One can then define wilderness as land or sea that has a high degree of wilderness character. Carver and Fritz (2016) noted that two basic factors, remoteness and naturalness, are used in one form or another in nearly all models of wilderness character. Thus, the wilderness character of a location can be regarded as a measure of its “wildness” on a scale from “intensively developed” to “remote and pristine.”

Lesslie and Maslen (1995) modeled wilderness character (which they termed “wilderness quality”

as the sum of four variables, three of which were based on weighted distances from human-made features such as roads and logging areas. The fourth was a measure of (local) biophysical naturalness. Variants of this methodology have been used to assess wilderness character across Australia (Lesslie 2016) and Europe (Kuiters et al. 2013), and within a number of European countries including the United Kingdom (Carver et al. 2002), Austria (Plutzer et al. 2016), Italy (Orsi et al. 2013), and Iceland (Ólafsdóttir et al. 2016). Hawes et al. (2015) employed a modified version of the Lesslie and Maslen methodology to assess wilderness character across the Tasmanian Wilderness World Heritage Area, taking into account travel times from points of mechanized access. The methodology could be refined to include assessments of the impacts of viewfield disturbances (Tricker et al. 2012; Sang 2016) and aircraft overflights (Weaver 2011; Collins 2015), taking distance factors into account.

The US interagency strategy called “Keeping It Wild” modeled wilderness character as a composite of five “qualities,” inferred from the wording of the US Wilderness Act (Landres et al. 2015). One of these qualities, “Solitude or Primitive and Unconfined Recreation,” can be measured in terms of remoteness. However, none of the indicators that Landres et al. suggested for measuring this quality (e.g., “Miles of User-Created Trails” and “Night Sky Visibility”) requires measurements of remoteness.

### Remoteness Case Study: Tasmania’s South Coast

To illustrate how a development such as hut construction can impact wilderness character, and how such impact can be



**Figure 1 – New River Lagoon on Tasmania's South Coast. The South Coast Track follows the beach. Photo by Grant Dixon.**



**Figure 2 – Recently constructed walkers' hut (cabin) complex on Tasmania's Three Capes Track. Note the helipad at lower left. Photo by Rob Blakers.**

quantified, consider two hypothetical developments within the Tasmanian Wilderness World Heritage Area. Both developments would involve the construction of visitor accommodation near New River Lagoon on Tasmania's South Coast Track, an 84-kilometer (52 mile) walking track (trail) that is currently hut-free except at its western trailhead (see Figure 1 and Map 1).

The first development would comprise a complex of continuously staffed walkers' huts, similar to those recently constructed on the Three Capes Track in Tasmania's southeast (see Figure 2). The huts would be serviced by helicopter, but would be accessible to the general public only by foot. The second, alternative, development would involve the construction of a tourist lodge in the same location, with clients accessing the lodge by helicopter. Either development would be permitted under current management (DPIPWE 2016).

The distribution of wilderness character across this section of the South Coast and its hinterland was calculated pre- and post-development for each scenario using the (modified) Leslie and Maslen methodology referred to previously. Map 2 shows the current distribution. Note that the wilderness character of much of the region is in the highest category (18–20 on a scale of 0–20). Lower values occur

near walking tracks and in the vicinity of roads to the east.

The direct biophysical impact of either development would be too small to register at the grid resolution used for this analysis (500 m/547 yards). Map 3 shows the wilderness character following construction of a staffed hut complex. This development would affect two of the four components of wilderness character, namely Apparent Naturalness, which is a measure of remoteness from artifacts such as roads, dams, and buildings; and Remoteness from Settlement. The development would rank as a "settlement" because it would be continuously occupied for much of the year.

As Map 3 shows, the development would have a substantial impact on wilderness character, even if its direct biophysical impacts were confined to its immediate footprint. The losses of wilderness character reflect the fact that, for example, the previously remote coastline east of the Ironbound Range would fall within a day's walk of the development. Helicopters servicing the development would be audible and visible, particularly in its vicinity. The development would be visible from the air, and probably from some ground-level vantage points. The presence of the huts would degrade the undeveloped quality of the region,

and would reduce the recreational challenge of the six- to eight-day South Coast walk.

Map 4 shows the impact of the "tourist lodge" development. This would affect an additional component of wilderness character, namely Time Remoteness, as the helipad associated with the lodge would be a point of access for its clients. Places that currently take days to reach would be accessible within hours of stepping off a city street. Wilderness character would drop to frontcountry levels up to 2 kilometers (1.2 miles) from the lodge, and would decrease by at least two units across more than 10,000 hectares (25,000 acres) of country. Note that the impact would be asymmetric, as Time Remoteness is a measure of travel times and is therefore dependent on local factors such as vegetation density and the location of walking tracks.

## Protecting Wilderness

Protecting wilderness requires maintaining the natural and undeveloped condition of wilderness and of the country that keeps it remote. Like wilderness itself, "remoting country" must be kept free of major infrastructure such as roads, dams, and tourist lodges, although its outer boundaries may border such features. Low-key huts and walking tracks may

be present in remoting country and on the fringes of wilderness, but not in its remotest areas. Where wilderness meets or is close to coastlines, reserves should ideally extend offshore to ensure that wilderness values are not compromised by offshore developments.

The primary management objective of wilderness reserves should be maintaining the wilderness character of wilderness, whilst allowing indigenous people to maintain their traditional wilderness-based ways of life and customs (Casson et al. 2016). Secondary objectives may include restoring wilderness character (for example by closing and rehabilitating vehicular tracks), and maintaining the wilderness character of less remote areas. As an aid to achieving these objectives, both when designing reserves and when assessing the impacts of possible developments, the distribution of wilderness character across managed areas should be quantitatively assessed under different scenarios of development and boundary alignment.

## Summary

Definitions of wilderness that disregard or downplay the significance of remoteness leave wilderness vulnerable to developments that can substantially compromise its values. These values are best protected by defining wilderness character in terms of naturalness and remoteness, and by making the preservation of wilderness character the primary objective of wilderness reserves.

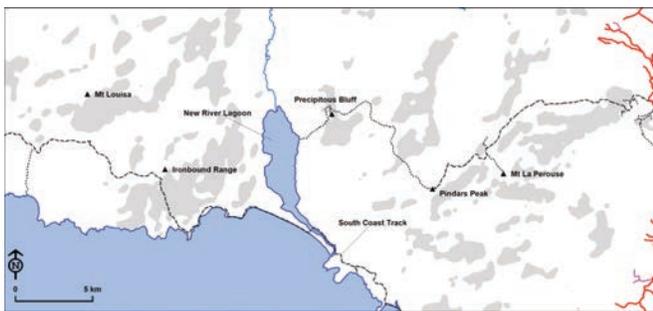
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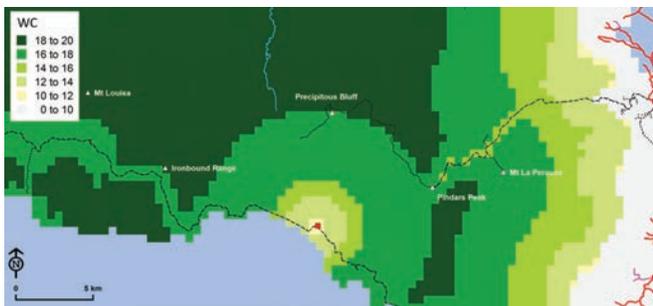
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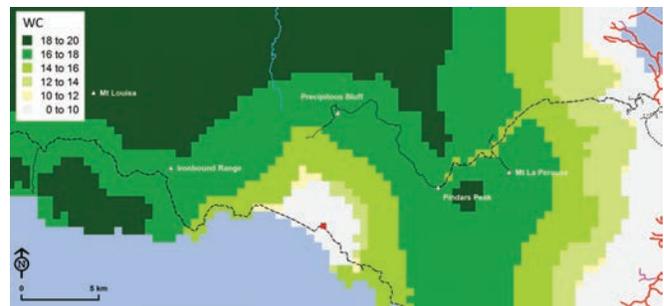
**Map 1 – Section of Tasmania's South Coast and hinterland. Dashed/dotted lines show major/minor walking tracks (trails).**



**Map 2 – Current distribution of wilderness character across the region shown in Map 1.**



**Map 3 – Projected distribution of wilderness character following hypothetical construction of a walkers' hut complex (indicated by red square).**



**Map 4 – Projected distribution of wilderness character following hypothetical construction of a lodge with helicopter access for clients.**

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**MARTIN HAWES** is a wilderness and walking track (trail) management consultant who has been exploring wilderness, mostly in Tasmania, for more than 45 years; email: [martin@twelveprinciples.net](mailto:martin@twelveprinciples.net).